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at the University of Fribourg, Switzerland

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STUDIES IN SOVIET THOUGHT

A QUARTERLY OF THE INSTITUTE OF EAST-EUROPEAN STUDIES

AT THE UNIVERSITY OF FRIBOURG / SWITZERLAND

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TRANSLITERATION SYSTEM

Russian Letter *Cap. Ital.*	Studies in Soviet Thought	U.S. Library of Congress	Russian Letter *Cap. Ital.*	Studies in Soviet Thought	U.S. Library of Congress
А *а*	a	a	Р *р*	r	r
Б *б*	b	b	С *с*	s	s
В *в*	v	v	Т *т*	t	t
Г *г*	g	g	У *у*	u	u
Д *д*	d	d	Ф *ф*	f	f
Е *е*	e	e	Х *х*	x	x
Ё *ё*	ë	ë	Ц *ц*	c	c
Ж *ж*	ž	ž	Ч *ч*	č	č
З *з*	z	z	Ш *ш*	š	š
И *и*	i	i	Щ *щ*	šč	šč
Й *й*	j	j	Ъ *ъ*	″	″
К *к*	k	k	Ы *ы*	y	y
Л *л*	l	l	Ь *ь*	′	′
М *м*	m	m	Э *э*	é	é
Н *н*	n	n	Ю *ю*	ju	ju
О *о*	o	o	Я *я*	ja	ja
П *п*	p	p			

Note: Articles in German will use 'ch' in place of 'x'. Commonly used proper names retain the form which is ordinary in English or German – e.g. Trotsky, Khrushchov, etc.

ABBREVIATIONS

AN Akademija nauk (Academy of Sciences: of the SSSR unless otherwise specified)

AON Akademija obščestvennyx nauk pri CK KPSS (Academy of Social Sciences of the CK KPSS)

CK KPSS Central'nyj komitet kommunističeskoj partii sovetskogo sojuza (Central Committee of the Communist Party of the Soviet Union)

FN Naučnye doklady vysšej školy. Filosofskie nauki (Scientific Reports of the Higher Schools. Philosophy)

IF Institut filosofii (Institute of Philosophy: of the AN SSSR unless otherwise specified)

IIL Izdatel'stvo inostrannoj literatury (Foreign Languages Publishing House)

Izd. Izdatel'stvo (Publishing House)

LGU Leninggradskij gosudarstvennyj universitet (University of Leningrad)

MGU Moskovskij gosudarstvennyj universitet (University of Moscow)

SSSR Sojuz sovetskix socialističeskix respublik (USSR)

SST Studies in Soviet Thought

UFN Uspexi fizičeskix nauk (Progress of Physics)

VF Voprosy filosofii (Questions of Philosophy)

VP Voprosy psixologii (Questions of Psychology)

VPŠ Vyssaja partijnaja škola (Upper Party School)

ŽTEF Žurnal eksperimental'noj i teoretičeskoj fiziki (Journal of Experimental and Theoretical Physics)

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KARL G. BALLESTREM

THE SOVIET CONCEPT OF TRUTH

There are two words for 'truth' in Russian: *istina* and *pravda. Pravda* is truth as a norm or value for both thinking and acting. *Istina* is truth in the context of theory of knowledge. We deal here exclusively with *istina.*

The theory of truth is a largely elaborated part of Soviet philosophy, due to the fact that Lenin paid considerable attention to this problem, above all in his *Materialism and Empiriocriticism.*[1] Ever since, Soviet theoreticians of knowledge have given similar attention to the problem and tried to clarify, systematize and apply what Lenin said[2], but in this further development a basic opposition to Lenin's views was impossible. It does not seem, therefore, fruitful to distinguish new trends in regard to this theory, particularly as among Soviet philosophers of today, there are no really diverging opinions in most cases. One can treat the different contributions as parts of one theory.

What is the place of the theory of truth within Soviet theory of knowledge? If we divide Soviet theory of knowledge into (1) *critique of knowledge (an sit cognitio)*, (2) *metaphysics of knowledge (quid sit cognitio:* 'the basic question of philosophy') and (3) *description of knowledge (quomodo fit cognitio:* psychology), – the theory of truth is mainly exposed in (2). It belongs to the general examination of the nature of knowledge, of the relation between being and thought, between knower and known.

GENERAL DEFINITION OF TRUTH

"Truth is the subjective representation of the objective."[3] Or: "Truth is the correspondence of a concept, an idea, to an object; a knowledge which correctly reflects objective reality."[4] In this or a similar way, a general examination of the problem of truth will usually begin. Although these general definitions will always be specified later on, it is already evident at this point that truth means knowledge as such, in its realization through unity with the object. It is a quality of the entirety of knowledge, not of special acts of knowledge.[5] It is a quality of knowledge

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and not of things (no ontological truth).[6] It is a quality of knowledge and only indirectly of linguistic expressions.[7]

This explains why 'truth' is often used in the same sense as 'knowledge' and always in the same sense as 'true knowledge'. It is necessary to keep this in mind to understand the whole terminology and approach of the Soviet theory of truth. Thus truth is said to be objective, relative and/or absolute, a process and concrete. These properties of truth make more sense, of course, if one calls them properties of true knowledge.

PROPERTIES OF TRUE KNOWLEDGE

The first property of true knowledge is its *objectivity*. It consists in the adequacy and correctness of the reflection in the knower. This correctness is only given in "such knowledge, whose content depends neither upon man nor upon mankind."[8] In other words: although knowledge is subjective in its form, it must reflect the "object such as it exists outside and independently of consciousness."[9] All kinds of idealism are said to deny this property of truth.

The second and most distinctive characteristic of truth in the Soviet conception is its *relativity* and/or *absoluteness*. These are said to be "the two moments of objective truth".[10] To understand this rather complicated theory one must go back to the basic conception in Soviet theory of knowledge of the reflection of the objective dialectic by the subjective dialectic. The whole of reality develops dialectically. This has (among many others) two meanings: (1) reality reaches ever new stages, overcomes and integrates them in its development; (2) this development is – so to say – not only vertical but horizontal: it is the development to ever greater richness and structural complexity of the same basic reality. The reflective development in consciousness corresponds to the development in re ality following both of these meanings. Consciousness or knowledge (both terms have the same meaning in Diamat)[11] of reality is at a certain point of its development either *preliminary*, to be overcome, or *definite*, sure for ever. Therefore, its truth is either relative or absolute in the meaning of (1). But knowledge of reality is also at a certain point of its development either a *partial* or an *all-comprehensive* reflection of reality. Therefore, its truth is either relative or absolute in the meaning of (2).

From this results that both 'absolute truth' and 'relative truth' are used

in two different ways. 'Absolute truth' means (a) definite, and (b) all-comprehensive knowledge. 'Relative truth' means (a) preliminary, and (b) partial knowledge.[12] In the light of this conception all truth is somehow relative, because although knowledge may accurately reflect reality, it must change corresponding to reality. "Just as everything changes and develops in the world, also truth changes."[13]

"Relative truth is that knowledge which basically reflects reality truly, but not entirely, only in known determinations, in certain conditions and relations. This knowledge is specified, completed and made concrete in the further development of science."[14] But relative truth is not only completed, but also destroyed by the further development of science. For example, the theory about atoms as indivisible parts of all things was relatively true in this sense.[15]

What is the relation between relative and absolute truth? The following text gives a first answer to this question: "What is absolute truth? Absolute truth is a truth which cannot be refuted in the future. ... Absolute truth is related to relative truth as the whole to the part. ... Human knowledge changes and develops from relative to absolute truth."[16] Thus, absolute truth appears as the sum of relative truths and the (ideal) limit toward which the (infinite) development of human knowledge goes.

But is there no actual absolute truth? "Absolute truth exists not only as limit toward which our knowledge tends, but which it actually never reaches. Knowledge is absolute if it develops on the path of objective truth and it only finds its absoluteness in this development. ... in all domains of scientific knowledge there are absolutely true statements which cannot be refuted in the further development of science. In each objective truth there are certain moments, sides, of absolute [truth]. Thus, our knowledge about the physical structure of matter is, on the whole, not complete, absolute, but there is much absolute in it (for example, the statements that the atom is divisible, that electrons, protons, neutrons are elements of the atom are absolutely true)."[17]

Referring to the schema given above, one can say that Soviet philosophy accepts *absolute truth* in the meaning of (b) only at the end of the development of reality and of knowledge through *relative truths* in the meaning of (a) and (b). It nevertheless holds that actual human knowledge can be *absolutely true* in the meaning of (a) and at the same time *relative* in the

meaning of (b): knowledge – although partial – may accurately reflect something so basic in reality that it will not be changed. The above given statements of physics and even more the laws of the dialectic are absolutely true in this sense. In this also consists the 'dialectical unity' between absolute and relative truth.[18]

In a further interpretation we shall come back to this question of the relativity and absoluteness of truth. At this point – only looking at the direct textual context in which the subject is treated – much seems to remain obscure in regard to this theory.

The third property of truth (true knowledge) is its being a *process*. With 'truth as process' two things seem to be meant: first that knowledge goes through different stages from sensation up to reasoning. In this sense, the "coincidence of a thought with an object is a process."[19] But secondly, and above all, this expression refers to the fact that knowledge is the historical development of human consciousness to absolute truth. We found this idea already expressed in the texts on relative and absolute truth. The following texts state it explicitily: "Knowledge is not a short, one-time acceptance, but a long-lasting, complicated, infinite process ..."[20] And again: "Dialectical materialism, contrary to metaphysical materialism, understands truth as the historically conditioned process of reflection of reality."[21]

Truth is, finally, said to be *concrete*. "An abstract approach to truth is a distortion of truth, its being ignored. The only correct approach to it is the concrete approach, i.e. to examine all essential sides of a phenomenon in its historical circumstances."[22]

This means that true knowledge reflects an object in its surroundings and in its historical determinations (how it came to be). Otherwise it is considered isolated and abstract. "Each object is related to all other objects of the world through an infinite number of threads. To know an object, one must examine all its connections, all its sides, but without separating the single sides of the object from the general coherence."[23] But there is also the other characteristic of concreteness: "Marxist philosophical materialism considers the concept of concreteness of truth in connection with the category of historicity. A concept is only really concrete if it reflects certain historical conditions, takes them into account, is related to them."[24]

Truth in the Soviet conception appears at this point as determined by

four main characteristics: *objectivity* (adequacy of the reflection); *relativity and/or absoluteness* (preliminary versus definite, partial versus all-comprehensive reflection); *process* (development toward truth in consciousness); *concreteness* (coherential and historical determination).

FORMS OF TRUE KNOWLEDGE

Soviet theory of knowledge attributes truth to knowledge as such, not to a special form of knowledge and its linguistic expressions. Consequently, if asked what forms of knowledge can be true, the answer is: all of them. Thus, *sense knowledge* (in its different forms), *concepts*, *judgments* and *reasonings* are equally considered bearers of truth. In all of them something objective is reflected and, therefore, they can all be true.

As to the truth of *sense knowledge*, the following text is categorical: "Not only the forms of rational or theoretical knowledge – concepts, judgments and syllogisms –, but also the forms of sense knowledge – sensations, perceptions and representations – contain objective truth."[25] The text – as so many others – goes on explaining that already Lenin attributed truth to sense knowledge and that this had to be so, because sense knowledge objectively reflected reality.

With regard to the truth of *concepts*, the Soviet theory is somewhat more difficult to inderstand. As all knowledge – insofar as it reflects something objectively – is true, so are concepts. K.S. Bakradze, for example, says that to deny truth to concepts is to confuse them with words (which can be only true in the composition of a sentence).[26] But a concept is true if its content is real (one could say: if it is exemplified). But if something real must be thought in a concept, it is of course difficult to distinguish it from an existential judgment. Indeed all concepts seem to not only imply, but to be constituted by judgments.[27]

The examples of true concepts one finds in Soviet theory of knowledge are always extremely complex concepts, like capitalism, Marxism, etc. In this sense, concepts are said to be "results of many judgments" and – repeating Lenin – the "result, sum ... of the history of the knowledge of the world."[28] Thus 'concept' is very often used like 'theory' in this context (as we talk of the Soviet concept of truth).

No Soviet philosopher would deny the truth of *judgments*. But some among the logicians – to the great indignation of all others – attribute

truth exclusively to judgments. The Polish philosopher A. Schaff, whose book on *Some Problems of the Marxist-Leninist Theory of Truth* has been translated into Russion, holds that to talk about truth or falsity in all other forms of knowledge besides judgment makes no sense.[29] I. D. Andreev tries to refute this classical view and continues by saying[30] that even in the Soviet Union this opinion is shared by V. F. Asmus[31] and the editors of the *sbornik* on logic of 1956.[32]

Soviet philosophy also speaks about the truth of *inferences* as such. In some cases this is not taken very formally. One repeats this theory with regard to the 'unity of the laws of being and thought'. But it means rather that an inference from true premisses to a true conclusion is true, because its parts are true and itself leads to true knowledge. Thus if V. I. Evčuk categorically states that "the inferences of natural sciences are objective truth"[33] it does not seem to mean much more than that. But others take it more formally. V. I. Čerkesov, for example, says that just as the content of thought reflects the content of reality, so do the formal sides of thinking reflect the formal sides of reality. He leaves the question unanswered as to what should correspond to the syllogistic form in reality. But he goes on explaining that form and content are inseparable in reality as well as in thought. Wrong conclusions, drawn from wrong premisses with logical correctness are impossible; in this case one will soon discover a logical error too.[34]

Čerkesov's theories are, on the whole, coherent with the system of Soviet theory of knowledge. Nevertheless, some Soviet philosophers certainly hold the opposite view. Apart from K. S. Bakradze, whom Čerkesov attacks in this context[35], there is L. B. Baženov, who keeps truth and logical correctness clearly separated[36] and exposes the Aristotelian view on their mutual relation *(ex falso sequitur quodlibet*, etc.)[37]

Concluding the remarks about the forms of true knowledge, one must say that the majority of Soviet philosophers (and among them the most faithful interpreters of the 'classics') hold that all forms of knowledge – from sense knowledge up to reasoning – can be called true.

LIMITATION OF TRUTH: FALSITY

One may be astonished that the question of *falsity* has not been touched until now. Usually one finds an explanation of falsity alongside with an

explanation of truth. A concept of falsity might even serve to throw a better light on a certain concept of truth and thus be a primary factor of explanation.

In the Soviet context – and we are at this point still following the direct context in which our subject is treated – this is certainly not the case. The question of falsity is introduced so hesitantly, the expression itself *(ložnost'; ošibka* – error*)* used so rarely, that one asks whether there is a theory of falsity at all.

Certainly, no Soviet philosopher would deny that there is falsity, that truth is difficult to find, etc. But there seems to be no explanation for it, as there was an explanation as to why, how and when we have truth. Is it necessary to have an explicit theory of falsity? Is it not sufficient to state that falsity is the opposite or the lack of truth?

Such a theory is always desirable, but in the Soviet context it seems even necessary. It is indeed difficult to understand how in a theory, where truth is objective reflection, but the same definition is given for knowledge as such, falsity could be explained. Falsity must then be the same as ignorance. False knowledge knows nothing at all. Indeed, this position is adopted more or less explicitly. (That is why we said at the beginning that 'truth' often has the same meaning as 'knowledge' and always the same as 'true knowledge').

There are texts where 'falsity, 'error' and 'ignorance' *(neznanie)* are used without distinction.[38] But, as one cannot explain falsity without knowledge, one talks about the 'dialectical unity of truth and falsity (error)'.[39] Thus falsity appears more and more as the partial character of a knowledge, as its limitation. This limitation can be double: (a) from the side of the *object:* because of the complex character of an object, knowledge does not reach it entirely[40]; (b) from the side of the *subject:* because of the limited capacities of the subject, knowledge itself will be limited.[41]

This, of course, makes falsity very similar to relative truth, as discussed above; we can see it in the following text of the *Filosofskaja Enciklopedija* "...even errors on the path of knowledge, resulting from the one-sidedness of relative truth, are signs of the insufficiency of former [knowledge] and the awareness thereof permits the development to a higher step of knowledge."[42]

In resumé one must say that the identification of truth and knowledge (truth as the essential property of knowledge) reduces falsity to the limi-

tation (relativity) of truth, to the partial ignorance of an object in an act of knowledge.

CRITERION OF TRUTH: PRACTICE

The role of practice, more precisely of the working upon the objects of nature, in man's life was one of the main problems of Marx and has remained such for Soviet philosophy. We cannot go into this problem deeply, because on the one hand it involves a number of the most basic philosophical views Marxism-Leninism has to offer (but the consideration of which would lead us too far). On the other hand, the problem seems to be dealt with by Soviet philosophers (contrary to the treatment by Marx) at a level that makes even a well-read Sovietologist shiver. Thus, we shall shortly sum up.

Practice is the origin of knowledge. Knowledge is acquired through working upon things. All theory is a generalisation from and directed by the needs of practice. But practice is also the finality of knowledge. Knowledge tends to its application and verification in practice. Herewith, practice is the only criterion of truth. This criterion is said to be absolute, insofar as it is objective, relative insofar as it never completely verifies (or falsifies) a theory (theory and practice are in evolution).

Practice is not (or only secondarily) understood as sense knowledge (or experience). Contrary to materialism of the seventeenth and eighteenth century, practice is understood as an *active* principle of transforming the world.[43] As well at the beginning (origin) as at the end (criterion) of knowledge, practice appears as an active principle: knowledge is realized through working on an object, the object is realized (as changed) through thinking practice.

Practice is not (or only secondarily) understood as individual activity. It is *social practice*, as M. N. Rutkevič – the specialist on the question – strongly underlines.[44] The following text sums up the Soviet concept of practice: "Marxism-Leninism understands by practice the socio-historical activity of people, which is directed toward the change of the surrounding world."[45]

INTERPRETATION

Considering again the Soviet theory of truth, as it results from the explicit texts on the subject and as it was exposed above, there remain

a number of problems, the Soviet answer to which must be disclosed in a further interpretation of partly the same texts, partly of the more remote context of Soviet theory of knowledge. The remaining problems, as we see them, can be formulated in the following way: (1) How can the Soviet conception of the relation between *truth* and *knowledge* be further determined? (2) What is the real *subject* of true knowledge in Soviet philosophy? (3) What is the proper *form* of true knowledge in Soviet philosophy?

From the answer to these questions, as given by Soviet philosophy, an *implicit theory of truth* will result, which can explain most of the obscurity that is left after an examination of the explicit texts.

(1) We said that in the Soviet theory truth appeared as the essential property of knowledge. Both truth and knowledge are defined as objective reflection. 'Truth' is thus often used in the same sense as 'knowledge'.

We already saw the consequences of this view in the theory of the forms of true knowledge and the concept of falsity. We now ask why truth is attributed, as the essential property, to knowledge as such.

One of the reasons is that Soviet philosophy makes no distinction between *meaning* and *denotation*. For them, objective reflection is the reflection of an existing reality.

That a concept is intentionally related to a meaning *(conceptus objectivus)* or that a linguistic expression has a meaning, and that this meaning is not the same as the object to which it may or may not be attributed – such a theory cannot be found in the Soviet context. Concepts reflect reality – that is all.

That factual judgments (or sentences) affirm or deny the unity of several meanings in an existing object – a Soviet philosopher would never admit. Judgments reflect reality in a more complex way than (simple) concepts – that is all.

Consequently, that truth is the property of that knowledge in which the unity of several meanings in an object is affirmed or denied and the facts correspond to this affirmation or denial – this statement will not be accepted by Soviet philosophers. *All* forms of knowledge, insofar as they objectively reflect reality, are true.

Consequently, the explanation of *falsity* as the property of that know-

ledge in which the unity of meanings in an object is affirmed or denied, while the facts do not correspond to this affirmation or denial, will not be accepted by Soviet philosophers. Contrary to this theory, in which false knowledge has meaning too, they will maintain their view about falsity as partial ignorance of an object, which is really no falsity at all.

These remarks are merely intended to show, that the confusion between truth and knowledge, the attribution of truth to all forms of knowledge and the impossibility of explaining falsity in Soviet philosophy, is based – last not least – upon the lack of distinction between meaning and denotation. When Soviet philosophers discuss this distinction, they treat it as idealistic, because the meaning of signs are not objectively existing things.[46] Instead, Soviet philosophy describes knowledge as a simple mirroring of existing things.

On the other hand, this primitive correspondence-theory of truth, which explains hardly anything, is not the real theory of truth in Soviet philosophy. Although it is widely exposed in all the explicit texts, its real importance is minor, as we shall see in the following.

(2) The texts which discuss the question of the objectivity, absoluteness and relativity of truth, suggest an examination of the question: what is the subject of true knowledge? One first thinks that the subject of true knowledge should of course be the individual knower. But soon one realizes that there is predominant talk of the knowledge of mankind, social consciousness. Every-day knowledge of individual persons is hardly ever used as an example.

In fact, already the definition of objective truth as that knowledge whose content is independent of consciousness, i.e. of man and mankind (cf. quotations 8 and 9) shows this ambiguity. The subjective side of knowledge is twofold, of man and of mankind. Soviet philosophy consequently distinguishes *individual* and *social consciousness*. As 'consciousness' is the same as 'knowledge' (cf. quotation 11), the distinction is between *knowledge of man* (individual knower) and *knowledge of mankind* (social knower). But does this really mean a distinction between two different types of subjects of knowledge? Is it not the same individual knower who is on one side individually conscious (as being one), on the other side socially conscious (as being related to others)?

The relation between individual and social consciousness depends upon the relation between individual and society in general, Soviet philosophy affirms that society consists of nothing but the individuals and only exists through its individuals. But each individual is almost completely determined by society, above all in those sides of its being which are different from material nature – its intellect and will.[47] One says that "certain forms of society produce a concrete historical person" but that the person is "not only a product of history, but also an immediate participant in the historical process..."[48] The text goes on explaining, following Marx, that the person "is the totality *(sovokupnost')* of all social relations" and finally that it is "the product of the law-bound *(zakonomernogo)* development of society."[49] Apparently, society relies on the individuals as on its material and conditional causes, but individuals are in their essence determined by society. Their relation is quite analogous to that of an organism to its members.

For the relation between individual and social consciousness, this idea is even more clearly expressed. G. M. Gak, a recognized authority on the subject, says the following: "As society, although it consists of individuals and is inconceivable without them, is a reality different from the totality of the individuals, neither can social consciousness, although it too does not exist without the consciousness of the individuals, be identified with the totality of individual minds, but has its special qualitative characteristics..."[50] As to individual consciousness, one can read the following determination: "Individual consciousness is the consciousness of an individual that lives in a society and is related to a certain class and is therefore in its essence, in its idea-content *(idejnomu soderžaniju)* an expression of social, of class-consciousness."[51]

Individual and social consciousness must be distinguished. Social consciousness only exists through and is conditioned by individual consciousness. But individual consciousness is in its essence and content determined by social consciousness. The picture of an organism is again the most appropriate to explain what is meant: all movements of my finger are my movements, but all my movements are not the movements of my finger. In this consists the 'special qualitative characteristic' of the whole over its parts.

Social consciousness is understood as the knowledge of mankind ('consciousness' and 'knowledge' are again identified in this context[52]).

All that *X* knows, belongs (provided that it is expressed) to the knowledge of mankind and is determined by it. But all knowledge of mankind does not belong to and is not determined by the knowledge of *X*. Thus, the knowledge of *X* plays an instrumental role in relation to the knowledge of mankind.

A closer examination of the texts on relative and absolute truth and on truth as a process shows the relation between individual and social consciousness in a *dynamic* context. These texts describe the development of knowledge toward absolute truth. It is evident that in most cases one refers to the knowledge of mankind.

In the dialectic of relative and absolute truth, one talks about the historical process of knowledge toward absolute truth. This process is infinite. "Knowledge is an eternal, infinite approximation of thinking to the object", as Lenin said.[53] This means "that the total human knowledge moves from relative to absolute truth, from less comprehensive and less exact, to more exact and more comprehensive knowledge."[54]

This shows quite clearly, that 'truth as process' and the 'development of knowledge from relative to absolute truth' do not refer to individual knowledge. They refer to the reflection of the objective by the subjective dialectic. But as this reflection is an infinite historical process, 'subjective dialectic' cannot have the meaning of 'individual knowledge'. In fact, knowledge by an individual knower is neither eternal, nor infinite, nor a historical process. Whilst knowledge of mankind continually progresses (following the development in reality) individual knowledge always has a limited start, can regress, stop, etc. Anyhow, 'as great and genial as a thinker might be, his knowledge cannot significantly transcend the limits of a given historical epoch."[55]

But individual knowledge is of course related to the development of the knowledge of mankind, as the following text of S. L. Rubinštejn shows: "Talking about the process of knowledge, one obviously cannot limit oneself to the individual process of knowledge, to individual knowledge of the world, one must thereby also view the process of historical development of knowledge; the process of knowledge of the world by the individual is mediated through the development of knowledge of the world by mankind, through the historical development of scientific knowledge, just as on the other hand the process of the historical development of scientific knowledge is mediated through the knowing activity of individuals..."[56]

From this text follows that 'social consciousness' is indeed understood as the 'knowledge of mankind' in our context. The development of knowledge is determined by a mutual 'mediation' *(oposredstvovanie)* of individual and social knowledge. But knowledge of mankind remains the determining, individual knowledge the instrumental factor in this mutual relation – as we saw above. Knowledge of mankind is also at each point of its development a more comprehensive reflection of reality than the individual contributions to it.

(3) Mankind as such obviously does not think. "Each thought originates and exists only as the thought of somebody, as the thought of one or another man. There are no other thoughts and cannot be."[57]

But mankind as such possesses knowledge in the form of all objectivized individual knowledge, which is organized in a system. This is the 'system of scientific knowledge' *(sistema naučnogo znanija)*, which is the *proper form of the knowledge of mankind.* The following text – again by S. L. Rubinštejn – is perhaps the most significant expression of this theory: "The system into which enter – thereby transformed – the thoughts of the individual, the product of his knowing activity, is the system of scientific knowledge, which is built in the process of socio-historical development. For the thinking of the individual it appears as 'objective reality', which it finds *(prednaxodit)* as independently, already-existing, social property and which it must *acquire* through its knowing activity. In the process of learning, of the continuous, socially-organized knowledge of man, the system of scientific knowledge, which matured in the process of historical development, appears to the individual as an object of acquisition."[58]

The system of scientific knowledge is given to each knower as an 'objective reality', which he must acquire, conform himself to. This is not only so in relation to the whole system, but "each member *(člen)* of this system appears no more as the thought of an individual but as its ideal object."[59]

In this way we have not only knowledge of mankind as a specific type of knowledge. Mankind also has a special form in which its knowledge is embodied: the system of scientific knowledge. As knowledge of mankind is in its comprehensiveness more absolute than the knowledge of the individual, so is the form of an objectivized system more absolute, more

true, than the forms of individual thinking: "Concrete knowledge of an object always forms a determined system, a totality of particular judgments, in which [totality] objective truth is contained. Judgment and concept disclose particular properties, sides, laws in an object, but a system of scientific knowledge reflects an object in the unity of its multiform sides, relations, mediations."[60]

It thus seems that the system of scientific knowledge appears as the form of true knowledge *par excellence* and that individual knowledge has to conform itself to the system of scientific knowledge of a given epoch (because the system itself develops), in order to be true.

Engels had said that it was impossible to construct systems after Hegel. Although the world is certainly one system, a totality of many interrelated parts, it would require comprehensive knowledge of the world to construct systems. As we don't have such knowledge – he said – the one who constructs systems must fill many gaps with his imagination, remains on the level of phantasy, of ideology.[61] Nevertheless, Soviet theory puts the stress on the construction of scientific systems (including philosophical systems) and even talks about the system of scientific knowledge, the expression of the knowledge of mankind. This system of scientific knowledge is in progressive evolution. Thus individual knowledge must be coherent with the actual level of science.

In this way we come to the coherence-theory of truth in Soviet philosophy. Individual knowledge is true, insofar as it is coherent with the actual knowledge of mankind, which is expressed in the actual level of science. A new concept of falsity appears: knowledge is false (or erroneous) if it is not coherent with the actual knowledge of mankind.

This is an implicit theory. But is it not too implicit to be called a Soviet theory of truth? Are the theories, on which it is based (above all the distinction between the knowledge of the individual and the knowledge of mankind) generally accepted, or only by a minority of Soviet philosophers? Is this theory ever applied in a field of Soviet philosophy? The answers to these questions determine indeed, whether this can be called a Soviet theory, or just a speculation based upon certain tendencies of Soviet philosophers.

It is true that not all Soviet philosophers would make the distinctions, on which our analysis was based, as clearly as those we choose. Nevertheless, one could call the group we described the Hegelian right, which

includes practically all of the 'dialectical logicians' and many others.

As to the other question, one must say that the coherence-theory of truth (and falsity) is *applied* by practically all philosophers in the Soviet Union. It is mainly applied in two domains: historiography of philosophy and critique of bourgeois philosophy. To judge theories as *progressive* or *reactionary* is a clear application of the coherence-theory of truth.

Marxism-Leninism considers the history of philosophy not as a gallery of philosophers, but as the development of the philosophical ideas of mankind (part of the *obščestvennoe soznanie*), which reflect the development of reality and of society *(obščestvennoe bytie)*. Furthermore, Soviet historiography of philosophy does not just describe ideas, they are judged. And yet, it is hard to find a place in this context where a theory is called true or false. Among other qualifications, theories are usually called progressive or reactionary. Whenever we met the terms they were given the same meaning: knowledge is progressive, if it is coherent with the actual knowledge of mankind and helps its (historically determined) development. Knowledge is reactionary, if it is incoherent with the actual knowledge of mankind and retards its development. Thus a theory like nominalism was at one point of the development of human knowledge (at the end of the middle-ages) progressive, but is today considered reactionary, against the development of science. The same is said, for example, about the theory of mechanism.[62]

But this is further specified. As knowledge not only reflects reality but also society, and as society is divided into classes, knowledge is progressive if it is coherent with the knowledge of the progressive class in society. E.g., today knowledge is progressive, if it is coherent with the knowledge of the proletariat, which is expressed in the system of Marxism-Leninism (some types of knowledge are said to be 'neutral' in this regard). The 'principle of party-mindedness in Marxist history of philosophy' explains this theory.[63] This leads to results such, that relatively unknown philosophers are explained extensively, not because of the level of their philosophical writings, but because of the progressive character of their philosophy.

Progressiveness thus receives the meaning of truth as coherence, as explained above. To be reactionary, means to be false in this theory. "To see the truth, one must look forward, defend the progressive and

help the ascending line of history."[64] This coherence-theory of truth does not reduce Soviet theory of knowledge to an implicit idealism. The knowledge of mankind as a whole reflects reality objectively and develops from relative to absolute truth. Therefore, the knowledge of mankind as such is always true, it develops and is modified, but on the whole this process is described as a progressive continuous evolution to ever more exact, more accurate and more comprehensive knowledge.[65]

Truth is – to conclude – the correspondence between the objectivized subjective dialectic and the objective dialectic. Objectivized subjective dialectic is the knowledge of mankind, which is embodied in the system of scientific knowledge. Individual acts of knowledge are only true through their coherence with the knowledge of mankind. 'True' is, above all, the system of scientific knowledge and this at the end of its development.

HISTORICAL REMARKS

It would be very interesting to make a thorough comparative study, analysing the Soviet concept of truth in its dependence upon and similarity with other concepts of truth in the history of philosophy. In this regard, we must limit ourselves to a few concluding remarks.

In its basic realism and the definition of objective truth, the Soviet theory seems very close to the Aristotelian concept of truth. In fact, Soviet philosophy praises the Aristotelian definition of truth as materialistic and progressive, although it hardly ever uses this definition in its own theory of truth. Attributing truth to all forms of knowledge (also sense knowledge and concepts), the Soviet theory of truth departs from Aristotle. It consequently has no more theory of falsity in the Aristotelian sense and follows Hegel in the conception of falsity as limited, isolated and incoherent knowledge.

Dealing with relative and absolute truth, it completely follows Hegel (and Spinoza) by holding that ultimately only a system of ideas can be called true, and one idea can only be so through coherence with and determination in the system. As with Spinoza and Hegel, this coherence and determination constitute the concreteness of an idea for Soviet philosophy. Hegel and Diamat teach that this system of ideas develops towards complete, absolute truth.

Hegel, Spinoza and Diamat would agree on the statements: true is an

whole system of ideas *(das Wahre ist das Ganze)*; true knowledge is concrete knowledge. Hegel and Diamat would agree in saying: the system of ideas is true at the end of its development *(das Absolute ist wesentlich Resultat)*.

The similarity between the Hegelian and the Soviet concept of truth is at this point just formal, as for Hegel the system of ideas is reality itself, whilst for Diamat it is the objectivized subjective dialectic reflecting the objective dialectic. Our analysis shows truth in the Soviet theory as logical, not ontological. Hegel's seems either logical or ontological, or both.

Only a further analysis of the theory of practice as basis and criterion of truth and of the Soviet answer to the 'basic question of philosophy' in general can clarify the ontological relation between subjective and objective dialectics and therefore explain our subject from a content point of view: is truth in Diamat just logical, or both logical and ontological as in all metaphysical monisms?

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ERVIN LASZLO

A CONCISE INTRODUCTION TO HUNGARIAN MARXISM-LENINISM

Marxism-Leninism is more cogent and alive in Hungary now than ever. This statement represents the conclusion from the author's study of Hungarian publications, and from his talks with leading philosophers, as well as with numerous intellectuals during his recent visit to Budapest (November, 1963).

If this conclusion is correct, it will be important to study the dynamics of Hungarian Marxism-Leninism and the work of the thinkers whose theories will be likely to channel and condition its development. The purpose of this paper is to provide the basic premisses for such a study.

I. THE DYNAMICS OF HUNGARIAN MARXISM-LENINISM

Although the intelligentsia as a class no more exists in Hungary than it does in the Soviet Union[1], in the absence of major pressures 'from above' almost all facets of the Hungarian scene are controlled and directed by intellectuals. Study of the kind of thinking done by this segment of the population is of decisive value therefore to the researcher interested in any aspect of Marxism-Leninism in contemporary Hungary.

The mentality of Hungarian intellectuals, I found, is radically different today from the mentality of the intellectual stratum of any western capital. While the educated citizen of western countries worries mostly about his own problems, and takes a more detached view of larger issues (be they ideological, philosophical, social, political or moral), the Hungarian intellectual tends to worry about the problems of mankind, the future of civilization, and passionately argues about the way they should be solved. These issues are, in the Marxist-Leninist sense of the term, 'ideological'. In the following points I have endeavored to compress the relevant data I could distill from detailed discussions with numerous intellectuals of diverse backgrounds, positions, and interests in Budapest, a city which, with its two million inhabitants, comprises one-fifth of the country's population, and the great majority of her intellectuals.

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The intellectuals I spoke with emphasized current diversity of opinion on ideological issues. By adopting their terminology, and by taking into account their self-classification ('Marxist'/'non-Marxist') their opinion on Marxist-Leninist doctrines may be subsumed under the following headings.

I. *Marxist-Leninist tenets affirmed by 'Marxists' as well as 'non-Marxists'*

(i) Materialism is the only true philosophy and the only scientific *Weltanschauung*. Idealism, considered its sole alternative and major opponent, had (at the most) a historical function, but is no longer tenable in the light of modern science (and the philosophy of Karl Marx).

(ii) Matter (material reality) is objective and primary, consciousness (knowledge) is subjective and secondary. The latter 'reflects' the former, and affords the ground for its true knowledge.

(iii) Social institutions and organizations are essential factors of human existence; man is an essentially social being, his thought and personality are determined by his standpoint within the given society.

(iv) History is motivated by the struggle of classes, it manifests recognizable patterns, and has a more or less definite, and on the whole predictable, direction.

I.1. *Marxist-Leninist tenets generally doubted or rejected by 'non-Marxists'*

(i) The Hegelian dialectic of Marxism-Leninism is *the* universally valid and applicable doctrine expressing the interrelation of particulars.

(ii) The Marxist-Leninist 'five-phase' interpretation of history is a sufficient explanation of history, and the adequate ground for historical prediction.

(iii) The Marxist-Leninist idea of Communist Society is feasible, desirable, and inevitable.

(iv) Socialist internationalism is necessary for progress; socialism in one country is wrong, if not impossible.

(v) Capitalism is condemned to extinction by the inevitability of the socialist revolution.

(vi) There is no peaceful coexistence on the ideological level.

I.2. *Marxist-Leninist tenets generally accepted by 'Marxists'*

(i) The tenets subsumed under I and I.1.

(ii) Almost all further ideas of Marx, most of those of Engels.

(iii) Most philosophic ideas of Lenin, Leninist political and organizational principles with some reservations.

(iv) At least one of a set of viewpoints currently expressed by Soviet theoreticians on any ideological topic.

It follows from the above schema that, if in fact the representative Hungarian intellectual affirms the doctrines listed under (I) (and exceptions to this, in my experience, were only given by elder persons, and by those with a personal grudge against the system), he believes that, (a) a philosophic interpretation of the problems of reality is relevant to human welfare; (b) class-struggle has historically been, and still is, a characteristic feature of human existence and the major determinant of thought and personality; (c) the general unfolding of history is governed by regularities (laws), and these regularities are knowable; (d) social planification based on the knowledge of these regularities is theoretically indicated and pragmatically desirable.

'Marxist' and 'non-Marxist' opinion diverges on the contention that the planification should follow the prescriptions of an exclusive Marxist-Leninist Party.

The question now arises, whether in an objective evaluation, we would be correct and justified in calling the prevailing tenor of the thinking of Hungarian intellectuals on philosophical and ideological topics 'Marxist', 'non-Marxist', 'Marxist-Leninist' or in considering it too diversified to permit a collective definition? Let us take a closer look at the expressed opinions, therefore.

(I) The views accepted by all intellectuals I met and talked with, amount to the philosophical position specified by the syndrome of certain philosophic views usually accomodated under the heading of the following 'isms': materialism, realism, anti-idealism, essentialism, collectivism, and historicism. Although it is likely that most intellectuals (other than students and professors of philosophy) would have experienced some difficulty in explicating their views in precise philosophical terms, their opinion on various issues was sufficiently definite and clear-cut to permit an attempt at an *a posteriori* philosophic elucidation.

Materialism. This term is used in an ontological and socio-economic sense. It is taken to mean that (i) only matter is existent and real; (ii)

nothing supernatural exists; (iii) everything (including thought and consciousness) is explainable in terms of matter, motion, and development; (iv) thought, personality and action, as well as economic and cultural change are largely (if not strictly) determined by the material factors of social life.

Realism. 'Realism' indicates exclusively epistemological, and never ontological realism. It has no relevance to the problem of universals *(ante rem/post re)*, but connotes that (i) sense-experience provides a true and continuous, if limited account of reality ('reflection theory'); (ii) science, and scientific philosophy can amend our limited knowledge of reality and construct a dependable picture of the world as it exists independently of our experience of it.

Idealism. The term is used merely in a negative sense, and is generally equated with any philosophic doctrine or attitude which conflicts with the above views. The starting point of philosophic discourse serves as criterion: idealist is the argument which induces being from consciousness (such an induction, it would seem, is held to be ampliative), while materialist (and realist) is the doctrine which deduces consciousness and knowledge from being. The latter is held to be concordant with the findings of modern science.

Essentialism. Essentialism with respect to societal problems and processes connotes belief in what Popper has called 'methodological essentialism in the social sciences'.[2] This view (not explicitly, but only tacitly admitted), means that the task of social science and of social philosophy is to penetrate into the fundamental characteristics of such sociological entities as the state, class, community, nation, economic and juridical structure, and the like, strip away the accidentals, and expose the basic and fundamental regularities (the 'essences'). Essentialism is usually linked with 'historicism' (cf. below), Popper asserts.[3]

Collectivism. 'Collectivism', taken in its social and ethical, and not in its economic sense, is present in the thinking of the intellectuals inasmuch as they tend to believe that the social group (class, community, nation, world-society, i.e. the functional human collectivities) are prior in moral, social, and political axiology to the individual. This seems to be a resultant of the accepted Marxist-Leninist tenet concerning the social determination of the thought and personality of the individual. 'Individualist' is held to be the system which gives priority to the interests of the

individual over that of the collectivity, and 'socialist' (i.e. collectivist) the one which lends priority to collective interests over individual ones.

Historicism. The term defines an aspect of the thinking of the here discussed group in that it explicates the often tacit belief that the history of anything is a sufficient explanation of its nature and the ground for predicting its future. With respect to society, this is the doctrine which discounts the 'fallacy' of the 'historical fallacy' and which assumes that ground for correct prediction is furnished by the discovery of the patterns, rhythms, and regularities which underlie the evolution of history.[4]

(I.1) The views expressed by the self-defined 'non-Marxists' amount, in a philosophical evaluation, to the affirmation of the positions described above (I), and the rejection of several further Marxist-Leninist tenets, of which the most important are: the three laws of the Hegelian dialectic; the unconditional validity of the Leninist elaboration of historical materialism; the social ideal of the Communist movement ('from each according to ability, to each according to need'); the theory of proletarian internationalism; the world-wide inevitability of the socialist revolution; and the necessity of constant ideological warfare.

(I.2) The convictions of the 'Marxists' appear to include most doctrines of Marx, many of Engels, and more the philosophical than the political doctrines of Lenin – some of the latter are gradually 'historicized'. (This statement takes no account of Party functionaries who – presumably – adopt Marxism-Leninism integrally.) In sum: 'Marxists' seem to be Marxists indeed, but they are also Leninists – though to a lesser extent.

Coming back now to the problem whether Hungarian intellectuals should be predicated 'Marxists', 'non-Marxists', 'Marxist-Leninists', or 'diversified', the conclusion emerges that in view of the general acceptance of such basic and characteristic Marxist-Leninist premisses as materialism, realism, anti-idealism, essentialism, collectivism and historicism, those Hungarian intellectuals I had the good fortune to talk with (and who were of varied backgrounds and of diverse social strata) may, without exception, be considered at the *least* convinced socialists, thinking in Marxist-Leninist categories and using Marxist-Leninist terminology, and at the *most* convinced communists, accepting most (but not all) the doctrines of Marxism-Leninism. The dividing line between 'socialists, thinking and speaking Marxism-Leninism' and 'communists, specifically, affirming Marxism-Leninism' should lie somewhere along the line of self-

imposed distinction between 'non-Marxists' and 'Marxists'. Even though a further and more detailed discussion of this problem is not compatible with the dimensions and stated purpose of this paper, it should be already evident from the above analyses that the general tenor of the thinking of Hungarian intellectuals (assessed on the basis of personal experience and research) qualifies for the 'Marxist-Leninist' predicate, with a pronounced accent on 'Marxist'.

In view of some of the more superficial western assumptions concerning the acceptance of Marxism-Leninism in East-European countries, the above assessment may appear surprising. It will appear less so, however, when the factors which lend momentum to the Marxist-Leninist ideology in Hungary are given due consideration. In my opinion, these factors are:

1. *Economic progress.* Real progress is being made today in Hungary on almost all fronts of the national economy touching upon the mode and standard of life of her intellectuals. This process dates back no further than 1957.

2. *Ideological liberalization.* Hungarians can now talk, act, and travel (even in the western world) freer than ever before in the country's post-war history. Less than a year has passed since this ideological 'thaw' has set in.

The basic effect of these confluent processes upon the thinking of Hungary's intellectuals may be reconstituted in broad outline.

At the end of 1956 the country was on the brink of economic ruin, morale was low and the future seemed bleak. The young intellectuals (students and writers for the most part) were Marxists-Leninists[5], but tended to lose faith, or to emigrate. The slow but relatively constant economic upswing following the regime's new politics gave rise, however, to the gradual re-awakening of cautious hopes concerning the future, and led to a re-appraisal of the ideological and political premisses of the process. Hence, the rising standard of living reacted on popular attitude toward the ideology. The, at first hardly perceptible, revaluation of Marxist-Leninist tenets soon began to manifest itself in more definite form in the thinking of the intellectuals. Former Marxists-Leninists whose faith was shaken in 1956, began to revise their opinion and return to the fold, just as those who were previously sceptical of Marxism began to find more of positive value in its system. Thus economic progress reinforced belief in Marxist-Leninist practices, and practice being the

criterion of truth (a postulate which is uncontestable with respect to social theory), greater confidence in Marxist-Leninist practice resulted in accrued approval of Marxist-Leninist theory. By the beginning of 1962 popular confidence and approval was evidently sufficiently stable and pronounced to permit a significant easing of the ideological controls. The ensuing period of liberalization triggered off a wave of optimism which is still mounting today. It reacts again on the attitude of the intellectuals toward the ideology, further confirming the justification of those ideas which are implied by the practices contributing to their improving mode of existence.

But a rising standard of living is not a sufficient premiss for the explanation of the reawakening interest in the Marxist-Leninist ideology in Hungary. We must consider two further factors: (a) the virtual unavailability of other than Marxist-Leninist systems of thought, and (b) the exculpation of the ideology in the eyes of the people.

It is evident that communist regimes guard against the influx of 'bourgeois' ideas, and this point needs no further explanation. It is less evident, however, that even those ideas which penetrate the ideological screen are impotent to vie with Marxism-Leninism under certain circumstances. One type of *Weltanschauung* which no control can eliminate is the traditional one. In Hungary, however, traditional *Weltanschauung* has been largely associated with the ills of the Horthy regime which, ending in the shambles of a lost war, had little hold on people other than those whose personal interests were tied up with it. Consequently the Nazi-tinted traditional *Weltanschauung*, though theoretically available to Hungarians, was sufficiently repulsive in the eyes of the majority of intellectuals to disqualify it as a serious competitor of Marxism-Leninism. The other type of *Weltanschauung* which despite controls, could have influenced the development of ideological consciousness in Hungary, is the western kind. However, the western *Weltanschauung* is not an ideology, and is entirely too nebulous and diversified to permit transplantation as a set of ideas abstracted from the mode of life which gave rise to it. Democratic ideas cannot compete with Marxist-Leninist ideology in a country where growing optimism is bound to socialist organizational principles.

Hence, notwithstanding the potential availability of traditional and western types of thought, neither was available in practice to Hungarian intellectuals in the period of post-Stalinist progress. There remained

Marxism-Leninism which, however, has been inculpated by the events until, and including, 1956. The line for its exculpation was laid down by Khrushchev at his famous anti-Stalin speech, when he identified the ills of the past decades of communism with Stalin, and the 'cult of personality'. The Hungarian regime needed merely to exploit the close ties of Rákosi and Stalin (Rákosi himself, was fond of being called 'Stalin's favorite son') and channel the bitterness attaching to past events to Stalin's grave and Rákosi's exile.

The communism of the Stalin era was radically differentiated from the principles and practices of the present, and contemporary Marxism-Leninism, as opposed to defunct Stalinism, was equated with its true essence.

Thus, under conditions obtaining in Hungary during and since the late fifties, Marxism-Leninism could be exculpated, and neither traditional, nor liberal ideals could be a fair match for it. Marxism-Leninism proved to be not only politically well able, but also psychologically welcome, to buttress the rising optimism of Hungary's intellectuals in recent years.

The dynamics of present day Marxism-Leninism in Hungary derive from a process which may be summarized as: rising living standards → awakening hopes → increased confidence in Marxist-Leninist practices → accrued belief in Marxist-Leninist tenets → liberalization without fear of consequences → reaffirmation of confidence in Marxist-Leninist practices → further approval of the Marxist-Leninist ideology.

II. FEATURES OF CONTEMPORARY HUNGARIAN PHILOSOPHY

Increasing confidence in many of the basic tenets of Marxism-Leninism lends a sense of importance without undue haste to current Hungarian work in philosophy. The essential foundations of Marxism-Leninism appear to be well established, and the problems posed by the as yet unexplored 'empty domains'[6] of dialectical materialism can now occupy the minds of the professional philosophers. The 'empty domains', and other special problems of Marxist-Leninist philosophy now investigated by Hungarian philosophers are, according to the sum of information gathered by this writer, the following[7]:

The special problems of Histomat. Considerable attention is presently focused on the problematic aspects of historical materialism by the publi-

cation of Molnár's *Dialectical Materialism and Social Science.*[8] The author gives herein a fresh interpretation of such philosophic problems of Histomat (among others) as, the distinction between law and tendency and between determination by law and accident, social laws and human activity, necessity and freedom, and discusses the problem of the person both from the psychological and the sociological viewpoint. The amount of attention elicited by this work among Hungarian philosophers at present leads this observer to believe that a creative reappraisal of historical materialist tenets is getting under way presently in Hungary.

Historiography of philosophy. This field is dominated by the work of Mátrai, who interprets the history of philosophy in general, and of Hungarian philosophy in particular, as manifesting the incessant fight of materialism and idealism in its development. Mátrai calls attention to some relatively little known figures of philosophy (e.g. Pietro Pomponazzi, Lucilio Vanini, Henricus Regius) and in particular of Hungarian philosophy (Bessenyei, Csokonai, Martinovics, etc.) to whom he attributes important roles in the historical development of modern thought.[9]

Philosophy of the person. I was repeatedly assured that this field is given top priority by many of the younger generation of philosophers, who are now exploring both Marxist and western theories of psychology and sociology in an effort to attain to a better definition of the nature of man. I have found, however, that aside from critiques of western theories, little of long-range significance has been produced in this domain so far.

Ethics. The steadily growing interest in problems of ethics is reflected in the increasing number of publications dealing with moral issues, and in the organization of the first national conference on ethics at the university of Pécs (September 18–21, 1963). Most work on this field approaches it from the aspect of practical ethics, and not much has been done yet to work out its philosophical problems.[10]

Logic. The controversy 'dialectical *vs.* mathematical logic' of Soviet logicians and epistemologists is reflected on a smaller scale in Hungary. Béla Fogarasi's *Logika* (Logic) was long considered the standard work in its field. Since first published in 1951, it has known three successively enlarged editions, growing in the process from 187 to 543 pages.[11] More recently Tamás' book *Scientific Definition* championed dialectical logic in dealing with the following problems: general characterization of scientific definition, its place in progress, its subject, content, forms,

modes, rules, and fallacies. Tamás concludes that only the materialist dialectical logic is capable of working out the theory and method of modern scientific definition.[12] Dialectical logic is also endorsed by Pál Sándor[13] while mathematical logic has found an eminent supporter in the person of academician László Kalmár.

Physics. The debates centering on the acceptance of Einstein's relativity theory as opposed to the Lorentz-transformation still elicit much interest in the ranks of Hungarian physicists. It appears, however, that relativity theory finds the greater number of adherents.[14]

Aesthetics. The further development of socialist realism, as well as the interpretation of the various branches of artistic production is one of the busiest and most fascinating aspects of the Hungarian philosophical scene. Aesthetics is especially activated at present by the wide-spread and intense 'Kafka-debate' and by the veritable 'cult' of Csontváry.[15] Both of these require that ostensibly non-realistic art be accommodated within the schema of 'socialist realism'. But the new trends in Marxist-Leninist aesthetics, introduced by Burov's *The Aesthetic Essence of Art*[16] and further developed in Hungary on the bases of the Vanslov-Stolovič school of aesthetics by László Garai, as well as the original work done by Forgács, Ujfalussy, Vitányi, Lendvai, and others, have revolutionized the traditional schemata of 'socialist realism', and made them more adequate and consistent in relation to the diverse forms of modern art and literature.[17]

Works in preparation. According to information received, the following special topics are now studied by Hungarian philosophers. Space and time in the philosophy of Leibniz (Simonovicsné); theory of proofs (Tamás Földesi); studies on Locke, and on young Marx (Endre Simon); sensory cognition (György Márkus); logical cognition (László Erdei); determinism in history (József Balogh[18]); the dialectical materialist interpretation of chemical phenomena (Tibor Erdey-Gruz[19]); problems of psychology (Lajos Kardos[20]); aesthetic of music (Iván Vitányi); study of the life and work of Bartók (József Ujfalussy[21]).

Estimation of Soviet philosophers. The student of Soviet philosophy will attain a better comprehension of the orientation of Hungarian thinkers upon consideration of the names of Soviet thinkers who are especially discussed and esteemed by their Hungarian colleagues. Philosophers: G. M. Gak, S. L. Rubinštejn, T. I. Ojzerman, B. M. Kedrov,

M. N. Rutkevič, I. S. Kon, A. F. Šiškin, P. N. Fedoseev. Physicists: V. A. Fok, D. I. Bloxincev. Aestheticians: A. I. Burov, V. V. Vanslov, L. N. Stolovič. Of the above, Gak, Rubinštejn, Ojzerman, Fok, and Vanslov are almost unanimously held in high esteem, relations are closest with Fedoseev (who is president of the Hungarian-Soviet Society), and Šiškin is considered less of a serious philosopher than a good popularizer. (Gak is held to be the serious philosopher of ethics.)

III. CONCLUSIONS

The objective and detailed study of Hungarian Marxism promises to be both important and interesting. In my talks with Hungarian thinkers I have emphasized that Sovietologists, and an increasing number of western philosophers are now undertaking serious and scientific studies of Marxist-Leninist thought. If I have found some scepticism concerning the credibility of this statement, I have also found willingness to revise estimates on this score. I too, had occasion to correct my previous estimate of the interest of Hungarian philosophers in current western work in their field. Hungarian philosophers, working calmly, without major pressures either 'from above' or 'from below' can undertake research into special problem-complexes, and can do so with an increasing regard for the specific character of the phenomena they investigate. They are still critical of western theories, but the range of western thought they cover, and the philosophical level of their critique, is steadily and significantly growing. This development, together with the realization of leading western and Hungarian Marxist-Leninist thinkers of the importance of understanding each other[22], can make for better relations and closer contact on ideological issues. If research is based on the correct assessment of the respective positions, positive results may obtain. It is in the estimation of the basic premisses of current Hungarian Marxism-Leninism that this 'introduction' may be of some value to western thinkers interested in gaining more insight into the present development of Hungarian thought.

REFERENCES

1. As Seton-Watson observed of the USSR, "the intelligentsia as a separate political and social group has ceased to exist and it has been incorporated in the state bourgeoisie, to which its name has been arbitrarily given." (Hugh Seton-Watson, 'The Role of the Intelligentsia', *Survey,* August 1962). I shall use the term 'intellectuals' to indicate the elite of the Hungarian state bourgeoisie.
2. Cf. Karl R. Popper, *The Open Society and Its Enemies.* London. 1957. Section vi of Chapter 3.
3. Cf. Karl R. Popper, *The Poverty of Historicism.* London. 1957. p. 30.
4. "I mean by 'historicism' an approach to the social sciences which assumes that *historical prediction* is their principal aim, and which assumes that this aim is attainable by discovering the 'rhythms' or the 'patterns', the 'laws' or the 'trends' that underlie the evolution of history." *op. cit.* p. 3. For further definition of 'essentialism' see my *Essential Society,* The Hague. 1963. pp. 7–24; for my own definition of 'collectivism' see *Individualism, Collectivism, and Political Power.* The Hague. 1964. especially p. 6.
5. These young intellectuals played the major role in the 1956 uprising. As the UN team observed, "The students thus became, with the writers, a mouthpiece for the Hungarian people as a whole. Their objective was not to criticize the principles of Communism as such. Rather, as Marxists, they were anxious to show that the system of government obtaining in Hungary was a perversion of what they held to be true Marxism..." 'Report of the Special Committee on the Problem of Hungary', General Assembly, Eleventh Session, par. 397. (1957)
6. Arnold Buchholz terms the questions which are discussed by western philosophers, but not (or not sufficiently) by their Soviet colleagues, 'empty domains' of dialectical materialism. He lists as such the question of the meaning of life, the problem of death, intuitive knowledge, and further all questions concerning the individual. (A. Buchholz: 'The Ideological East-West Conflict', *Studies in Soviet Thought* I (1961) 130.)
7. I am indebted for much of the data given here to Professors Mátrai, Sándor, Ujfalussy, Vitányi, Kovács, and to several students of the faculty of philosophy at the Lóránd Oetvös University in Budapest. The views expressed are not necessarily theirs, but represent my personal assessment of the issues.
8. Erik Molnár: *Dialektikus materializmus és társadalomtudomány.* Kossuth, Budapest. 1962.
9. László Mátrai: *Gondolat és szabadság* (Thought and Freedom). Magvetö, Budapest. 1961; and *Régi magyar filozófusok* (Ancient Hungarian Philosophers). Gondolat, Budapest. 1961.
10. Ágnes Heller's *Černiševskij's Ethics* is still considered by many to be the major Hungarian contribution to socialist ethics on the philosophic level. The only recent work of greater dimensions on the theory of ethics is György Ágoston's *A kommunista erkölcs tartalma és az erkölcsi nevelés feladatai* (The Content of Communist Ethics, and the Tasks of Moral Education), Tankönyvkiadó, Budapest. 1961. For a report on the national conference on ethics see *Valóság,* 1963, 5, 140–144.
11. Béla Fogarasi: *Logika* (Logic). Akadémia Budapest. 1951, 1953, 1955, 1958.
12. György Tamás: *A tudományos meghatározás* (The Scientific Definition). Akadémia Budapest. 1961.

13. Professor of logic and dialectical materialism in Budapest, author of *O logike Aristotelja* (On the Logic of Aristotle), Akadémia Budapest, 1961.
14. cf. *Fizikai Szemle* (Review of Physics) edited by Györ Marx, and 'Magyar Fizikai Folyoirat' (Hungarian Journal of Physics) edited by Lajos Jánossy.
15. The words of Áron Tobiás, writing in the November 1963 issue of the literary periodical *Kortárs* (Contemporary) characterize the importance of the 'Csontváry cult' (I preface by pointing out that Tivadar Csontváry was a tragically neglected top-level painter of the expressionistic school): "We witness a great event: the country's public becomes aware of, finds something of which it has hitherto either not known, or known only by hearsay, and of which now, on getting to know it, feels that is of unusually great importance, and it veritably rejoices that this country, this people, possesses such a treasure".
16. A. I. Burov: *Estetičeskaja sučnost' iskusstva.* Moskva, 1956.
17. Cf. especially Laszló Forgács, *A szocialista realizmus esztétikai meghatározásához: I. Tudatosság és költöiesség* (For the Aesthetic Definition of Socialist Realism: I. Consciousness and Poesy), Magvetö Budapest, 1962; József Ujfalussy, *A valóság zenei képe* (The Musical Image of Reality), Zenemükiado, Budapest, 1962; Iván Vitányi, *A tánc* (The Dance), Gondolat, Budapest, 1963; and the numerous studies of Ernö Lendvai on Béla Bartók.
18. Cf. Balogh's recent article, 'A társadalmi törvény marxista fogalmának forrásai' (The Sources of the Marxian Conception of Social Laws), *Magyar Filozofiai Szemle* 1963, 3, 450–460.
19. Cf. Erdey-Gruz's book *Anyag és mozgás: adalékok a kémiai jelenségek dialektikájához* (Matter and Motion: Data on the Dialectics of Chemical Phenomena), Akadémia, Budapest, 1962; and that author's numerous articles in scientific and philosophical publications.
20. Cf. Kardos' major work, *Grundfragen des Psychologie und die Forschungen Pawlows* (Basic Questions of Psychology and the Researches of Pavlov), joint edition of Akadémia, Budapest, and VEB Deutscher Verlag der Wissenschaften, Berlin, 1962.
21. I was privileged to hear one chapter of this book, read by the author at a conference at the Bartók Archives, Budapest, on November 14, 1963.
22. Cf. J. M. Bocheński, 'Why Studies in Soviet Philosophy' *Studies in Soviet Thought* III (1963) 1–10, esp. the assertion that "much in Soviet [Marxist-Leninist] philosophy is not lacking in interest for the philosopher... [and it] is an important factor in Communism" p. 2 and 4; and László Mátrai's article in *Népszabadság* (the official daily of the Hungarian Socialist Workers' [Communist] Party) of November 3, 1963, wherein the recent meeting of Marxist-Leninist and western philosophers at the international congress of philosophy in Mexico City is deemed a manifestation of 'positive internationalism' and the view is expressed that "philosophical debate is inevitable if we wish to coexist peacefully, and for this we must learn the opponent's viewpoint thoroughly".

SIEGFRIED MÜLLER-MARKUS

DIE KOMPLEMENTARITÄT IN DER SOWJETPHILOSOPHIE*

I. VORBEMERKUNGEN

Die sog. Kopenhagener Deutung der Quantenmechanik[1] war und ist bis auf den heutigen Tag für die Sowjetphilosophie ein Stein des Anstoßes. Ebenso wie das Relativitätsproblem rührt der Kern der Auffassungen von Bohr und Heisenberg an die Grundpfeiler der kommunistischen Erkenntnistheorie. Dieser Kern wird am durchsichtigsten im Begriff "Komplementarität", wenngleich er damit nicht erschöpft ist. Der Ausdruck "Komplementaritäts-Prinzip"[2], wurde von Bohr erstmalig auf dem Volta-Kongress in Como aufgestellt und wird seitdem auch in der westlichen Wissenschaftsphilosophie viel diskutiert. Es scheint, daß unähnlich dem Ausdruck "Relativität" ihm nicht immer ein präziser Sinn zugrundegelegt wird, ja daß ihn Bohr selbst zuweilen mehr "genialisch"-intuitiv benutzte.

Die sowjetische Diskussion um das KP zerfällt in drei Hauptphasen, die zugleich den allgemeinen Stand der sowjetischen Wissenschaftsphilosophie kennzeichnen. Freilich geschah der Übergang zwischen den Phasen weniger dramatisch als bei der Relativitätstheorie[3]. Dort gab es immerhin eine offizielle Anerkennung, hier vollzog sich der Kampf mehr im Stillen, aber nicht minder konsequent. Wieder ist es der große sowjetische Denker der Physik Fock[4], der den Angriffen der orthodoxen Philosophengruppe entschieden entgegentrat. Sein Referat auf der Allunionskonferenz über philosophische Probleme der modernen Naturwissenschaft 1958 brachte drei Jahre nach der Anerkennung der RT (die Fock wesentlich selbst herbeiführte) den Kopenhagener Standpunkt hinsichtlich des Indeterminismus zum Durchbruch, wenngleich Fock den Positivismus Bohrs nach wie vor ablehnt. In dieser Hinsicht scheint die Verurteilung von Markovs Versuch 1947 nach wie vor den Grundstimmungen der führenden philosopischen wie physikalischen Denker zu entsprechen.

* Gekürzte Fassung eines Vortrages an der Universität Bonn am 19.XI.1963.

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Offizieller Sprecher der orthodoxen Deutung der QM ist Omel'janovskij; seine Haltung gegenüber den theoretischen Fundamenten der QM erinnert in manchem an die Verurteilung der RT durch I. V. Kuznecov. Nur verstand es Omel'janovskij besser als dieser, rechtzeitig den neuen Trend aufzufangen und sich als philosophischer Interpret der QM zu behaupten, während I. V. Kuznecov sich seit 1954 zur RT nicht mehr mit eigenen Deutungsversuchen äußerte.

II. DAS KOMPLEMENTARITÄTS-PRINZIP

Die sowjetischen Philosophen haben, soweit ich sehe, niemals eine genaue Bestimmung des von ihnen so heftig attackierten Ausdrucks "Komplementarität" gegeben. Von Weizsäcker unterscheidet zwischen paralleler und zirkulärer Komplementarität.[5] Unter "parallel" versteht er "auf der gleichen begrifflichen Stufe liegend", unter "zirkulär" "auf verschiedener Stufe liegend und einander wechselseitig bedingend". Nach von Weizsäcker ist der ursprüngliche Bohrsche Ausdruck zirkulär: danach besitzt unsere Erkenntnis "Voraussetzungen *a priori*, die gleichwohl durch die mit ihrer eigenen Hilfe gewonnenen inhaltlichen Erkenntnisse rückwirkend korrigiert und umgedeutet werden"[6]. Dieser Satz von Weizsäckers könnte offenbar, mit einigen Ergänzungen, ebenso an der Wiege der speziellen und auch der allgemeinen Relativitätstheorie stehen, sofern man an die dort vorgenommene Korrektur unserer apriorischen Raum- und Zeitbegriffe denkt. Bohr versteht nun nach von Weizsäcker im obigen Sinn vornehmlich die Komplementarität zwischen der Definition eines Begriffs und seinem unmittelbaren Gebrauch sowie zwischen Raum-Zeit-Darstellung und Kausalität. Im weiteren folgen wir von Weizsäcker: Nach dem Quantenpostulat verlangt jede Beobachtung am atomaren Objekt eine nicht zu vernachlässigende Wechselwirkung mit dem Gerät, so daß "weder den Phänomenen noch dem Beobachtungsmittel eine selbständige physikalische Realität im gewöhnlichen Sinn zugeschrieben werden kann".[7] Da nun die Definition des Zustands die Ausschaltung aller äußeren Beeinflußungen fordert, so ist nach dem Quantenpostulat jede Beobachtungsmöglichkeit ausgeschlossen und die Begriffe Raum und Zeit verlieren ihren unmittelbaren Sinn. Lassen wir aber Wechselwirkungen mit äußeren Messungsmitteln zu, so ist eine Definition des Zustandes nicht mehr möglich und es kann von Kausalität im gewöhn-

lichen Sinn keine Rede sein. Nun müssen wir aber alle Erfahrung letztlich mit Hilfe der Anschauungsformen Raum und Zeit ausdrücken bzw. uns über jedes Experiment in klassischen Ausdrücken Rechenschaft geben. Andererseits ist die ψ-Funktion in Raum und Zeit unserer Anschauung definiert. Wenn nun die Schrödingergleichung eine deterministische Beschreibung der zeitlichen Entwicklung der ψ-Funktion gestattet, so involviert die deterministische Beschreibung den Verzicht auf die raumzeitliche, d.h. klassische Beschreibung und umgekehrt. Wir sind eben nach Bohr zugleich Zuschauer und Teilnehmer am Schauspiel des Daseins, auch in der QM, wo nach von Weizsäcker dem Subjekt die Objekte nur als seine Objekte gegeben sind, Subjekt und Objekt also nicht trennbar sind.[8] Aus dieser grundsätzlichen Struktur des Erkennens der Mikrowelt ergeben sich dann die üblichen Auffassungen der sog. parallelen Komplementarität: Die drei Ausschließungsverhältnisse der beiden klassischen Kennzeichnungen von Ort und Impuls für das Teilchen, von Ort und Wellenzahl für die Welle und schließlich von Welle und Teilchen selbst. Man könnte von Weizsäckers Darstellung vielleicht auch so interpretieren: Wir sind in zweifacher Hinsicht Gefangene unseres eigenen Entschlußes, die Mikrowelt experimentell zu befragen: Einmal verlangt dieses Fragen eine Störung des Objekts, wir können die unbeobachtete Natur nicht beobachten, unser Anruf an sie läßt sie gewissermassen erschrecken und aufhorchen. Im Experiment vermögen wir dem Experiment selbst nicht zu entrinnen. Ich möchte dies ein *methodisches Apriori* nennen, das dem experimentellen Erkennen gewissermaßen bereits in seiner äußersten Schale aufgeprägt ist. Zum anderen sind wir als Makrowesen auf das doppelte Apriori der Raumzeit-Beschreibung und der Zuordnung des Experiments zu klassisch-physikalischen Begriffen angewiesen.

Die Sowjetphilosophen reagierten auf das KP ebenso heftig wie auf die RT. Dies ist nicht verwunderlich. Sie erblickten darin einen vierfachen Angriff gegen ihre Erkenntnistheorie: (1) Die ψ-Funktion tritt an die Stelle der in Raum und Zeit objektivierbaren Wirklichkeit. In diesem Verzicht auf raumzeitliche Anschaulichkeit sieht man einen Angriff gegen die Relität–Materialität der Welt. (2) Die unkontrollierbare Wechselwirkung zwischen Gerät und Teilchen und die daraus folgende Unschärferelation impliziert für die Sowjetphilosophen einen Agnostizismus. (3) Die Korrektur der klassischen Begriffe durch die QM widerspricht der

Abbildtheorie. (4) Die theoretische Genesis des mathematischen Apparats der QM widerspricht dem Empirismus des Diamat.

III. DER FALL MARKOV

Ähnlich wie bei der Diskussion um die RT war es zunächst eine ziemlich unorthodoxe Deutung der Theorie durch einen sowjetischen Physiker, die den Widerspruch hervorrief. Maksimovs Angriff gegen die RT wurde durch Naan[9] ausgelöst, die Angriffe gegen das KP durch M. A. Markov. M. A. Markov, theoretischer Physiker von Rang, heute Korrespondierendes Mitglied der AN, gab 1947 Anlaß zu einem der größten philosophischen Skandale der Stalinära. Er legte in den damals eben gegründeten *VF* 1947, 2, weitgehend ideologiefrei seinen erkenntnistheoretischen Standpunkt zur QM dar. Dabei vertrat er eine zunächst positivistische Haltung. Er ging aus von der Besinnung auf das operativ Gegebene, wagte aber dann den Durchbruch zum Objektivismus. Es war kaum weniger als eine mutige Synthese zwischen Positivismus und Realismus, zwischen Mach und Lenin.

Markovs Konzeption wurde zunächst von den physikalischen Fachkollegen günstig aufgenommen, bis die Parteiphilosophen Maksimov und Omel'janovskij Markov des Kantianismus, Agnostizismus, ja des Idealismus und der Neuauflage der von Lenin verworfenen Hieroglyphentheorie beschuldigten. Das Redaktionskollegium der *VF* unter Kedrov wurde abgelöst.[10] Wäre Markov nicht Physiker sondern Biologe oder gar Geisteswissenschaftler gewesen, so hätten diese Vorwürfe genügt, ihn auch physisch zu vernichten. So wurde nichts über persönliche Repressalien bekannt und 1960 finden wir ihn wieder mit einer Artikelserie über Probleme der Elementarteilchen in den *VF*.

Was war geschehen? Markov verlegt das Erkenntnisproblem in die grundlegende Tatsache, daß der Mensch ein *Makrowesen* ist. Wären wir selbst Mikroobjekte, so gäbe es nach Markov keine QM. Man könnte Markov dahin ergänzen, daß Lenins Abbildtheorie sich höchstens auf die Makrowelt beziehen kann (sofern sie überhaupt stimmt). Gerade die vom Diamat behauptete empirische Herkunft unserer Anschauungsformen und Grundbegriffe muß ihre Korrespondenz mit der Außenwelt dort fragwürdig machen, wo diese nicht mehr unmittelbar makroskopisch erfahrbar ist. Für Markov ist die Konstruktion eines Geräts, das zugleich

Ort und Impuls eines Teilchens exakt mißt, ebenso unmöglich wie ein *perpetuum mobile*, da in jede Beobachtung die atomistische Wechselwirkung eingeht. Die Unschärferelationen Heisenbergs sind die komprimierteste Form der QM. Zu diesem Atomismus der Wechselwirkung mit dem Gerät tritt noch ein subjektives Moment: Es ist unmöglich, gleichzeitig Ort und Impuls eines Teilchens zu kennen. An sich sind andererseits die Begriffe "Ort" und "Impuls" auf die Mikrowelt exakt anwendbar, nur daß sich ihre exakten Meßwerte ausschließen. In diesem begrenzten Sinn liefert das Experiment eine Information vom Teilchenzustand. Teilchenzustand, Information und Wellenfunktion werden für Markov synonym. Hier liegt kein böses Verhängnis über der Messung, sondern die Begriffe "Ort" und "Impuls" verlieren objektiv unter bestimmten Bedingungen ihren Sinn. Unanalysierte Grundbegriffe rächen sich, wie das Beispiel der Gleichzeitigkeit zeigt. Der Physiker darf nicht nur erzählen, sondern muß prinzipiell zeigen, worum es sich handelt, wenn er bestimmte Ausdrücke verwendet. Er hat sozusagen schweigend die Erörterung eines Problems durch Meßgeräte durchzuführen. Die Aufforderung zu messen besitzt eine riesige pädagogische Bedeutung.

Hier beging Markov eine Grundsünde gegen die Abbildtheorie. Lenin schrieb den Begriffen prinzipiell Realitätsgehalt zu; er verlangte nur ihre dialektische Anpassung an die Situation. Eine Theorie des Irrtums und der Begriffskorrektur kennt der Diamat kaum. Daher auch die heftige Abwehr des methodischen Positivismus in RT und QM durch die Erben Lenins.

Für Markov ist die Frage nach einem bestimmten Ort des Teilchens (bei exakt gemessener Geschwindigkeit) ein Scheinproblem, ebenso wie die Frage nach der realen Bahn in der Relativitätstheorie. Komplementär- und Relativitätsprinzip sind analog. Was heißt überhaupt "ein gegebenes Teilchen?" Wie ist es uns gegeben? Durch welches Gerät haben wir seine Existenz festgestellt? fragt Markov. Darin will Markov aber keine nur phänomenale oder gar vom Denken fingierte Existenz eines Quantenobjekts sehen. Wie Gerade und Parabel als Abbild derselben Teilchenbahn sich im selben Bezugssystem ausschließen, so auch die genauen Begriffe "Impuls" und "Ort", bezogen auf dasselbe Teilchen im selben Experiment. Und dies objektiv. Man kann nicht die Quantenmechanik als eine durch äußere Unkenntnis verdorbene klassische Mechanik bezeichnen. Nicht unsere Unkenntnis kann die Ursache für das Wissen von dem riesigen neuen Erfahrungsmaterial der Atomphysik sein.

Die makroskopische Form unserer Erkenntnis führt aber für Markov zu keinem grundsätzlichen Erkenntnisverzicht, sondern nur zu einem Zwang der Übersetzung eines Mikrophänomens in die Aussagen des Makrogeräts. Damit entsteht eine eigenartige Projektion der Mikrowelt auf die Makrowelt. Daß wir überhaupt die Mikrowelt makroskopisch beobachten können, beruht auf der Veränderung eines makroskopischen Zustand durch ein Mikrophänomen. Deshalb können wir auch jede Wechselwirkung der Mikro- mit der Makrowelt in klassischen Ausdrücken deuten. Immer ist die gedankliche Substitution des Mikrofaktors durch einen klassischen Faktor möglich, der dieselbe Zustandsänderung des Makrogeräts hervorbrächte. Aus der Projektion des Mikrophänomens auf das Makrogerät reproduziert nun der Beobachter das Mikroobjekt aus makroskopischen Begriffen. Diese reichen aus zur Beschreibung jeder konkreten Zustandänderung im Makrogerät. Darin liegt die objektive Bürgschaft für den Erfolg der Beschreibung des Mikroobjekts in klassischen Begriffen.

Die QM brachte somit nach Markov einen wesentlich neuen Aspekt über das Subjekt-Objekt-Verhältnis. Der Verlust an Anschaulichkeit setzte aber schon mit der RT ein, wo die Beobachtung eines Phänomens immer nur von einem Bezugssystem aus möglich ist. Auch in der Quantenmechanik ist die Wiedergabe der Wirklichkeit nicht eindeutig, sondern hängt von der Gerätklasse ab.

"Obwohl die Wahl der Versuchsanordnung sich gänzlich in der Macht des Subjekts befindet, widerspricht diese aktive Rolle des Subjekts nicht der Objektivität der Welt... ebenso wie die menschliche Tätigkeit in keiner Weise der Existenz der objektiven Welt widerspricht, sondern sie voraussetzt. Aber völlig unmöglich wird die anschauliche Beziehung zur Wirklichkeit."[11] Die Frage, was ein Elektron ausserhalb der Beobachtung sei, ist ebenso sinnleer wie die Frage nach der Geschwindigkeit ohne Angabe des Bezugssystems.

Diesen bemerkenswerten Sätzen schließt sich eine fast theologische These an: Die Erkenntnistätigkeit des Menschen ist von der Natur selbst für deren Erkenntnis prädestiniert. Markov schließt mit einer vernichtenden Kritik am sog. metaphysischen Materialismus, unter dem unschwer die orthodoxe Sowjetphilosophie zu verstehen ist:

"Der metaphysische Materialismus trat zur Entwicklung der Wissenschaft in Opposition.... Er fordert die Vertreibung der subjektiven Mo-

mente aus der aktiven Seite der Erkenntnis. ... Praktisch hat er ... nichts an Stelle des Kritisierten vorgeschlagen". Sein Kampf gegen den Subjektivismus ist rein verbal, denn er objektiviert subjektive Momente und ist ähnlich einem Schüler, der alle Eigenschaften eines Elektrons erfuhr und nun fragt: Aber warum heißt es Elektron? "Der metaphysische Materialist ist ein großer Meister, nicht vorhandene Probleme zu stellen".[12]

IV. DIE PERIODE DER LEUGNUNG

Die Verurteilung Markovs durch die philosophischen Nachfolger Lenins[13] zeigt, daß dieser Vorwurf nicht nur gegen den vormarxistischen Materialismus gerichtet ist, sondern gegen den ideologiegebundenen Teil der Sowjetphilosophie selbst. Die allgemeine Haltung der ideologiegläubigen Philosophengruppe zeichnet sich besonders deutlich bei ihrem Wortführer *Omel'janovskij* ab. Er ist Mitglied der Ukrainischen Akademie der Wissenschaften und seit mindestens 1947 offizieller philosophischer Interpret der QM. Auf internationalen Kongressen vertritt er die sowjetische Wissenschaftsphilosophie. Leider dürfte nicht allen seiner westlichen Kollegen bekannt sein, was er über Bohr und Heisenberg schrieb. 1956, also 3 Jahre nach Stalins Tod, heißt es in seiner Monographie *Philosophische Probleme der Quantenmechanik*[14]: Die idealistische Deutung der QM durch Bohr und Heisenberg wirkte sich verhängnisvoll auf ihre Theorien aus und hemmte den Gang der Wissenschaft. Er spricht von "kantianischen Verrenkungen der Atomphysiker", ein Ausdruck, den Ždanov in seiner berühmten Rede 1947 benutzte. Zwar ist die QM als solche dem Idealismus fremd, aber sie wird durch den ideologischen Überbau beeinflußt. Im Interesse des Kapitalismus verfälschen die bürgerlichen Gelehrten die einen Tatsachen, verschweigen die anderen, erfinden angebliche Tatsachen und Naturgesetzte. Nur die Arbeiterklasse ist an der Darstellung der Wirklichkeit interessiert.[15]

Demgemäß unternimmt Omel'janovskij noch 1956, also 1 Jahr nach Anerkennung der RT eine schlichte *Leugnung der Heisenbergschen Unschärferelationen:* Sie entstammen überhaupt nicht dem mathematischen Apparat der QM, sondern Heisenbergs Gedankenexperimenten, sie tragen sozusagen Vorquantencharakter; der Inhalt der QM selbst schließt die Heisenbergschen Relationen aus. Sie haben keinen physikalischen Sinn and verdunkeln den Inhalt der QM im Sinne des subjektivistischen KP.

Für die Verwerfung der Relationen genügen Omel'janovskij deren westliche Deutungen: Heisenberg sieht darin die Unterscheidungsgrenze zwischen Objekt und Gerät; Pauli die Begrenzung der klassischen Vorstellungen von Licht- und Stoffkorpuskeln, Bohr ein Maß für die unkontrollierte Wechselwirkung. Der mathematische Apparat und die Fakten der QM stehen nach Omel'janovskij zwar mit der Unschärferelation in Übereinstimmung, diese Übereinstimmung nennt man jedoch bereits "Deutung".

M.a.W. wenn ein physikalisches Prinzip dem Diamat widerspricht, so muß es trotz seiner Übereinstimmung mit dem Experiment verworfen werden.

4 Jahre später, 1960, muß sich Omel'janovskij denn auch gegen den Vorwurf verwahren, als sei die moderne Physik überhaupt mit dem Diamat unverträglich:

"Das Gerede, wonach Diamat und moderne Physik angeblich getrennte Wege gehen, wonach die moderne Physik ungeachtet der materialistischen Dialektik und im Widerspruch zu ihr ihre Entdeckungen macht, wurde von verschiedenen politischen und philosophischen Gegnern des Marxismus in Umlauf gesetzt und von einzelnen Naturwissenschaftlern, die den anti-kommunistischen Vorurteilen der imperialistischen Reaktion Tribut zollen, unterstützt, hat aber in Wirklichkeit keine vernünftige Begründung und wird durch den wissenschaftlichen Gehalt der Physik selbst widerlegt".[16]

Als Beweis führt Omel'janovskij den Start des ersten Sputniks, die industrielle Verwendung der Atomenergie in der UdSSR und den Einschlag einer sowjetischen Rakete auf dem Mond an. Kapica, ein Schüler, Rutherfords, einer der führenden sowjetischen Kernphysiker, erinnerte allerdings 1962 in der *Ekonomičeskaja Gazeta* daran, daß hätte man den Philosophen geglaubt, die sowjetischen Wissenschaftler weder den Mond getroffen noch Atombomben entwickelt hätten: Das erstere war nur dank der noch 1954 als reaktionär verurteilten *Kybernetik*, das zweite nur dank der noch 1952 verurteilten RT möglich.[17]

Die Sowjetphilosophen verteidigen in der Tat ein schweres Erbe, das ihnen Lenin hinterließ. Jede Einschränkung ihrer grundsätzlichen *Realitätsthese* und ihres *Erkenntnisoptimismus* gilt als unmittelbarer Angriff gegen den Leninismus. So formuliert Omel'janovskij 1956 folgende Ausgangsbasis für eine materialistische Deutung der Quantenmechanik: (a) Die Mikrophänomene und ihre Gesetze sind objektiv; (b) makro-

und mikrophysikalische Objekte sind Glieder der einheitlichen Entwicklungskette der Materie, jedoch qualitativ voneinander abgehoben; (c) zwischen ihnen besteht kein unüberbrückbarer Abgrund; alle Eigenschaften der Mikroobjekte erscheinen in der einen oder anderen Weise im Gebiet der Makroerscheinungen; (d) auch für die Mikrowelt gibt es keine Erkenntnisgrenze.[18]

Demgemäß wendet sich der Wissenschaftstheoretiker Narskij in seiner Kritik am Neopositivismus 1962 dagegen, die unbeobachtbaren Mikroobjekte als logische Konstruktionen anzusehen. Der Neopositivismus könne keine Antwort geben, weshalb logische Konstruktionen Voraussagen von Sinneseindrücken liefern und mit Wahrnehmungen zusammenfallen können. Allein der Diamat gebe dafür eine Erklärung in der Erkenntnis, daß wissenschaftliche Theorien künftige Ereignisse nur insoweit voraussagen, als sie eine adäquate Abbildung von Eigenschaften, Relationen und ursächlichen Zusammenhängen der objektiv existierenden materiellen Welt enthalten.[19]

Hier liegt in der Tat der Kern der sowjetischen Erkenntnislehre, wie sie schon Lenin 1909 gegen Helmholtz und Hertz vertrat. Dementsprechend wendet sich Omel'janovskij auch hier gegen den Operationalismus Mandel'štams. Nach Mandel'štam folgt die Unschärferelation sowohl aus dem mathematischen Apparat als der Anregung des gemessenen Systems durch den Meßakt. Der Unterschied zwischen einem klassischen und einem Quantenobjekt liegt daher nach Mandel'štam nicht im Objekt selbst, sondern im Übergang vom mathematischen Symbol zum klassischen Objekt, d.h. in der Meßrezeptur.[20] Für Omel'janovskij werden danach physikalische Größen durch die Meßrezeptur erzeugt, was der Objektivität unserer Erkenntnis widerspricht. Physikalische Eigenschaften existieren unabhängig von den menschlichen Meßgeräten; ihre Abbildung vollzieht sich durch die Schaffung von Begriffen, Gleichungen und Theorien, die relativ richtig die Materie widerspiegeln.[21]

Omel'janovskijs Argument entspricht genau dem Einwand I. V. Kuznecovs gegen Mandel'štams Operationalismus bezüglich der Relativität. Hierin liegt ein doppelter Irrtum: Einmal können wir nicht sinnvoll von der Koordinate eines Teilchens sprechen, ohne eine Wahl zwischen den komplementären Meßverfahren für Ort und Impuls zu treffen; die Situation ist hier ähnlich der notwendigen Wahl eines Bezugssystems in der speziellen RT, nur dass dort die Koordinate im Prinzip *immer* be-

stimmt werden kann, während in der Quantenmechanik dies bei der Wahl eines Impuls-Meßverfahrens nicht mehr möglich ist, sondern nur ein Wahrscheinlichkeitswert angebbar ist. Zum anderen liefert die Quantenmechanik keine relativ richtige Beschreibung von Vorgängen, wenn wir unter "relativ" verstehen, daß eine ihr widersprechende Theorie ebenfalls das Teilchenverhalten beschreiben könnte. Die orthodoxe sowjetische Philosophengruppe nährt die Hoffnung, daß eine künftige Theorie die grundsätzliche Unbestimmtheit im Teilchenverhalten aufheben könne. Heisenberg meinte zu ähnlichen Erwartungen, sie seien analog zur Hoffnung, daß eine Besserung der Finanzen eintrete, wenn eine künftige Mathematik zeige, dass $2 \times 2 = 5$ ist. Heisenberg bezweifelt, ob in diesem Fall eine wirkliche Besserung der Finanzen zu erwarten sei.[22] M.a.W. es ist fraglich, ob eine widerspruchsfrei durchgeführte Theorie, in der das Mikroverhalten nicht mehr unbestimmt ist, unsere Kenntnis der Wirklichkeit verbessert.

Nach Heisenberg sind alle Opponenten der Kopenhagener Deutung, einschließlich der Russen, sich darin einig, daß man zum Realitätsbegriff der klassischen Physik zurückkehren müsse, d.h. zur Ontologie des Materialismus, wonach die kleinsten Teilchen einer objektiv existierenden Welt ebenso real existieren wie die Steine und Bäume, unabhängig vom Beobachter.[23]

In diesem Zusammenhang diskutiert die Sowjetphilosophie die Ausdrücke "real" und "objektiv" und zwar in einer Polemik gegen Born und Heisenberg. Für Max Born sind Teilchen, Geräte und Felder Teile eines an sich Existierenden; das reale Ding ist für den einfachen Menschen eine *Invariante* der Empfindung, die der Verstand durch einen unbewußten Prozess konstituiert. So sind die Objekte der Quantenmechanik, die Elektronen usw. Invarianten des Wellen- und Teilchenaspekts.[24] Darin sieht Omel'janovskij eine Hinwendung zum Materialismus, zu den dialektischen Ideen des inneren Zusammenhangs von Wellen- und Teilcheneigenschaften. Wogegen er sich wendet, ist nur die Herkunft des Invarianzbegriffs aus dem Verstande; der Invarianzbegriff könne den der objektiven Realität nicht ersetzen, da damit die Frage nicht entschieden sei, ob den Teilchen unabhängig von der Vernunft Existenz zukomme oder ob diese deren Erzeugnis sei.[25] Der Irrtum Omel'janovskijs ist evident: Selbst zugegeben, daß der Invarianzbegriff der apriorischen und synthetischen Tätigkeit des mathematischen Verstandes entstammt, so

ist er doch Ausdruck der Intention des Physikers, den Phänomencharakter von Welle und Teilchen zu transzendieren und das bewußtseinsunabhängige Korrelat des Teilchenbegriffs zu beschreiben. Heisenberg bekennt sich ausdrücklich dazu, daß das Reale in der Quantenmechanik die gleiche Rolle spiele wie in der klassischen Physik. Es ist gerade ein Grundpostulat der Bohrschen Konzeption, alle Aussagen über das Teilchenverhalten auf klassische Begriffe zurückzuführen, nur daß es eben grundsätzlich unvereinbare Klassen von Größen wie Energie und Zeit, Ort und Impuls, gibt. Nun beschreibt anderseits nach Heisenberg die ψ-Funktion kein reales Etwas, das Teilchen ist vor dem Meßakt keine reale materielle Wesenheit in Raum und Zeit, sondern nur ein Mögliches, das mathematisch beschrieben wird. Dies ist der Grund für das Auftreten der Wahrscheinlichkeit in der Quantenmechanik. Dieses Mögliche ist aber für Heisenberg objektiv, womit er sich sowohl gegen den Idealismus als den Positivismus und Materialismus abgrenzt. Für Omel'janovskij wird daraus eine Deutung des Objektiven im Sinne des Platonschen Idealismus und das Reale wird zum Synonymon der Beschreibung mit klassischen Begriffen.[26]

V. FOCK

Omel'janovskijs Leugnung der Komplementarität wird indes keineswegs von allen sowjetischen Wissenschaftsphilosophen geteilt. Am stärksten opponiert ihr Fock. Er erörterte das Komplementaritätsproblem 1957 persönlich zwei Monate lang mit Bohr. Bohr übergab ihm das Manuskript eines Aufsatzes über "Quantenmechanik und Philosophie", das Fock 1959 in *UFN* veröffentlichte. Im Mai 1961 hielt Bohr zwei Vorlesungen in Moskau, ein Zeichen, wie sehr sich die Physikergruppe gegen die orthodoxen Philosophen durchsetzen konnte.[28] Dabei zeigt sich eine interessante Annäherung der Standpunkte zwischen Bohr und Fock: Fock berichtet, Bohr habe ihm bei vielen kritischen Bemerkungen zu seiner Erkenntnistheorie zugestimmt und von Anfang an erklärt, ein Gegner des Positivismus zu sein.[29] Fock seinerseits erkannte zunächst folgende Stücke der Bohrschen Auffassung an: (a) Die QM schränkt die klassische Beschreibungsmethode ein, worin das Phänomen an sich, d.h. losgerissen vom Beobachtungsmittel, untersucht wird; (b) unaufhebbarer Mittler zwischen Mikroobjekt und Erkenntnis ist das klassisch beschriebene Gerät. Fock bezeichnet dies als tief dialektische These, die der

ganzen Deutung der Quantenmechanik zugrundegelegt werden müsse; (c) dabei ist notwendig, das KP anzuwenden.

Andererseits scheint Bohr nach Fock auf halbem Wege stehengeblieben zu sein. Das Ziel dieses Wegs ist eine objektivistische Deutung der Quantenmechanik. Unter diesem Aspekt formuliert Fock folgende Einwände gegen Bohr:

Bohrs berühmte Diskussion mit Einstein 1949 (s. Anmerkung 29) enthält nur eine Kritik der klassischen Begriffe, ohne die neuen Begriffe zu klären. Er benutzt vom ganzen Apparat der QM nur die Heisenbergschen Vertauschungsrelationen. Damit entsteht der Eindruck, als hätten die mathematischen Symbole der QM keinen physikalischen Sinn und seien nur ein Mittel der komplementären Beschreibung. Hauptinhalt der Quantenmechanik ist nicht die Koordinierung der Meßergebnisse, sondern die Beschreibung der Eigenschaften von atomaren Objekten in ihrer Beziehung zur Umwelt. Eigenschaften wie Ladung, Masse, Spin sind nicht nur objektiv, sondern können auch vom Gerät abstrahiert und dem Objekt selbst zugeschrieben werden.

Weiter ist Bohrs Ausdruck "unkontrollierbare Wechselwirkung" nach Fock unglücklich gewählt. Jeder physikalische Vorgang ist erkennbar und folglich kontrollierbar. Es handelt sich nicht um eine Wechselwirkung, sondern um den logischen Zusammenhang zwischen klassischer und quantenmechanischer Beschreibungsmethode auf der Grenzscheide zwischen dem quantenmechanisch beschriebenen Teilchen und dem klassisch beschriebenen Gerät. Fock schlägt nun seinerseits vor, die Atomphysik auf folgende neuen Grundbegriffe aufzubauen: (1) Relativität des Objekts gegenüber den Beobachtungsmitteln; (2) Unterschied zwischen Prognose und Faktum, d.h. dem Möglichen und dem Verwirklichten, (Fock sagt "potentiell Mögliches"); (3) Wahrscheinlichkeit als Zahlmaß für das Mögliche.

Sachlich gesehen ist Focks Ausdruck "Relativität" für eine Synthese von Relativitäts- und Quantentheorie bedeutsam. Persönlich begibt sich Fock in die Nachfolge Heisenbergs, den er freilich bemerkenswerterweise nirgends nennt. Er leitet damit zugleich eine neue Phase der sowjetischen Diskussion ein: 1958 hielt er auf der *Allunionskonferenz über philosophische Probleme der modernen Naturwissenschaften* in Moskau das Hauptreferat über die Deutung der QM.[30] Er wandte sich darin ebenso gegen eine positivistische Deutung der Bohrschen Idee, etwa durch Jordan, wie gegen die These der Schule De Broglies, im Namen des Materialismus den

Wahrscheinlichkeitscharakter der QM zu leugnen. Die Wahrscheinlichkeit impliziert danach keinen Verzicht auf die Objektivität der Mikrowelt und ihrer Gesetze. Die Relativität der Quantenobjekte gegenüber den makroskopischen Beobachtungsmitteln, wie sie in den Heisenberg-Relationen zutagetritt, schließt keineswegs ihre Objektivität aus, sondern präzisiert nur die physikalischen Begriffe und gestattet die Einführung neuer Begriffe. Das atomare Objekt besitzt eine potentielle Möglichkeit, sich je nach den äußeren Bedingungen als Welle oder Teilchen zu verhalten. Jede andere, buchstäblichere Deutung des Wellen-Teilchen-Dualismus in Gestalt irgend eines Modells ist falsch. Dies betrifft vor allem die Schule De Broglies. Während in der klassischen Mechanik alles Mögliche auch verwirklicht wird, ist das Quantenobjekt vor dem Endstadium des Experiments, z.B. der Messung des Orts, durch eine Wellenfunktion gekennzeichnet. Der durch sie beschriebene Zustand ist objektiv in dem Sinn, daß er eine vom Beobachter unabhängige Kennzeichnung der Möglichkeiten für das eine oder andere Ergebnis der Wechselwirkung mit dem Gerät darstellt. "In diesem Sinn bezieht er sich auf das Einzelobjekt. Aber dieser objektive Zustand ist noch nicht wirklich in dem Sinne, daß für das Objekt in einem gegebenen Zustand diese potentiellen Möglichkeiten noch nicht realisiert sind."[31]

Der Übergang vom Potentiellen zum Aktuellen geht im Endstadium des Experiments vor sich. Die Wahrscheinlichkeitsverteilung ergibt sich dann nach einer statistischen Bearbeitung einer Messerie. Fock sieht demgemäß die philosophischen Implikationen der QM (1) in der Analyse des Erkenntnisakts, d.h. in der Unmöglichkeit, auf das Beobachtungsmittel zu verzichten, (2) im Auftreten der Wahrscheinlichkeit als Grundbegriff, d.h. im fundamentalen Schnitt zwischen Möglichkeit und Wirklichkeit. Er ist sich durchaus darüber klar, daß dazu das klassische Erbe des Diamat nicht ausreicht:

"Hier kann man nicht auf das Studium des klassischen Erbes und auf eine Häufung von Zitaten aus den Klassikern ausweichen, sondern man muß die Lösung der philosophischen Fragen der Naturwissenschaft schöpferisch angreifen. Man muß schöpferisch den Diamat weiterentwickeln. Dabei muß man sich daran erinnern, daß die Ideen der Atomphysik tatsächlich radikal neu sind und daß man sie nicht abwimmeln kann, indem man versucht, den Sachverhalt auf jene Ideen zu reduzieren, über welche wir fertige Urteile der Klassiker besitzen".[32]

VI. SCHLUSSBEMERKUNGEN

Hier konnte nur ein Überblick über die wichtigsten Phasen der sowjetischen Diskussion gegeben werden. Vom KP gehen strahlenförmig eine Reihe von weiteren Problemen aus; die bedeutendsten bilden der Wellen-Teilchen-Dualismus, die Unschärferelationen, die Natur des Mikroobjekts, Determinismus und Anschaulichkeit. Zu ihnen allen gibt es eine intensive Auseinandersetzung in der UdSSR. Daß Focks letztgenannte Worte praktisch unwidersprochen auf der Allunionskonferenz 1958 geäußert werden konnten, mag zur Hoffnung auf eine vorurteilsfreie sowjetische Diskussion der Probleme berechtigen.

ANMERKUNGEN

1. Im folgenden QM.
2. Im folgenden KP.
3. Im folgenden RT.
4. Wir schreiben "Fock" statt unserer Transskription folgend "Fok", da die erste Schreibweise der nicht-sowjetischen Wissenschaft allgemein bekannt ist.
5. Weizsäcker, C. F. von: *Zum Weltbild der Physik.* 8. Aufl. Stuttgart. 1960.
6. A. a. O., S. 294.
7. A. a. O., S. 292.
8. A. a. O., S. 294.
9. Jetzt Mitglied der AN der Estnischen SSR. Durch eine Ironie des Schicksals wurden Markov und Naan nach ihrer Verurteilung durch die Parteiphilosophie die höchste wissenschaftliche Auszeichnung in der Hierarchie verliehen.
10. Wetter, G.: *Der Dialektische Materialismus,* 5. Aufl., Freiburg, 1960, S. 479, wo Markovs fundamentaler Aufsatz allerdings nur auf einer Seite dargestellt wird.
11. *VF* 1947, 2, 174.
12. A. a. O., 176.
13. Zur Diskussion um Markov, siehe *VF* 1947, 2, 138–139 (Vavilov); *VF* 1947, 2, 381–382 (Potkov); *VF* 1948, 1, 203–206 (Storčak), 207–209 (Kursev, Michajlov) 209–211 (B. G. Kuznecov), 211–212 (Petruševskij), 212–214 (Blochincev), 215–216 (Veselov, Vol'kenštejn), 217–222 (Danin), 224 (Brief von Kiever Studenten), 225–232 (Ot redakcii). *VF* 1948, 2, 227 (Ot redakcii), *VF* 1948, 3, 222–228 (Maksimov) 228–231 (Terleckij), 231–235 (Ot redakcii).
14. Omel'janovskij, M. E.: *Filosofskie voprosy kvantovoj mechaniki.* Moskva. 1962. 269 str.
15. A. a. O., str. 7, 25, 26.
16. Omel'janovskij, M.: *Das Problem der Realität in der Quantenphysik, in Naturwissenschaft und Philosophie.* Berlin. 1960. S. 86.
17. Siehe *SST* II (1962) 3, 226. Kapicas Artikel steht in *Ekonomičeskaja gazeta,* 23. März 1962.
18. *Filosofskie voprosy,* a. a. O., 19.
19. *VF* 1962, 1, 62–70.

20. Mandel'stam, L. I.: *Polnoe sobranie trudov.* t. V. 1950. str. 394–395.
21. *Filosofskie voprosy,* a. a. O., str. 84f.
22. *Niels Bohr and the Development of Physics.* London. 1955.
23. Dto.
24. Born, M.: *Physik im Wandel meiner Zeit,* 1948, S. 145 f., wo Borns fundamentale Verteidigung des Realismus steht.
25. *Filosofskie voprosy sovremennoj fiziki.* 1959. str. 27–28.
26. A. a. O., str. 30–35.
27. *UFN* 57 (1959) 317 f.
28. *VF* 1961, 8, 156–160.
29. Die folgenden Ausführungen Focks in *UFN* 56 (1958) 4, 599–602. Im selben Heft ist auch Bohrs 'Discussion with Einstein on epistemological problems in atomic physics' (1949) abgedruckt.
30. *Filosofskie problemy sovremennogo estestvoznanija.* Moskva. 1959. str. 212.
31. A. a. O., str. 223.
32. A. a. O., str. 229.

THOMAS J. BLAKELEY

PHILOSOPHICAL DISSERTATIONS IN THE USSR

(1947–1954)

This paper has as its object the analysis of the titles of theses presented for the degree of "candidate of philosophy" in various institutions of the U.S.S.R. 1947–1954. The 978 dissertation titles used in the analysis were published in the Soviet philosophical review, *Voprosy Filosofii* 1947, 2, 372–373; 1951, 6, 211–217; 1953, 1, 230–237; 1955, 3, 197–211.

As originally presented, each list was divided by region and subject. The primary division, that according to region, gave preference to the three most prominent institutions, i.e. the Academy of Social Sciences of the Central Committee of the Communist Party of the Soviet Union (AON), the Institute of Philosophy of the Academy of Sciences of the Soviet Union (IF), and the University of Moscow (MGU). The remaining universities and institutions of higher learning were grouped in a fourth part. Each of these four parts was subsequently divided into three parts corresponding to the three major divisions of Soviet philosophy, i.e. Dialectical Materialism, Historical Materialism and History of Philosophy.

For the purposes of more accurate presentation and analysis the institutions are listed separately. The rather schematic tripartite division according to topic has been expanded into the twelvefold repartition recommended to Soviet philosophers by the editorial staff of the Soviet philosophical review, *Filosofskie nauki* (1958, 1, 3–10).

Table A shows the distribution of the output of each institution into the twelve categories as found in *Filosofskie nauki.* Wherever possible standard abbreviations have been employed for the names of the institutions. A complete interpretation and translation of the symbols used is to be found in the list of abbreviations (see page 55–56).

DIALECTICAL MATERIALISM (Diamat)

Materialist Dialectic (Matdia) corresponds roughly to what Western philosophers classify as Ontology. The theses in this section make up 2.2% of the total. They deal with such subjects as: "The Category of

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TABLE A

	Diamat				*Histomat*					*Histophil*				
	Matdia	Dialog	Knowl	Philsci	Devel	Soc	Art	Eth	Athrel	Classics	West	Russ	Misc	
AON	5	4	7	9	60	22	2	3	1	72	12	47	2	246
Artil												1		1
AzerU	1		2	3	1					1		2		10
AzerP	1													1
BeloU		1			1		1			3		4	1	11
BeloAON					1									1
VoronU			1				2							3
VP					15	1		1		5	1	2		25
VPS	1				1					1	1			4
Gor'kovU					1		1							2
ErevanU	2											3	1	6
IF	3	6	5	9	24	5	9		1	12	17	40	8	139
IrkutU			2							2				4
KazanU						1						1		2
KazaxU	1									1			1	3
K										1				1
KGU			2	1	9	2	1			5	2	10		32
KGPgI					1		1					1		3
LGU	2	2	6	3	26	1	1	1	1	16		18	2	79
LGPgI				2		1				2	1	4		10
MGU	2	8	8	5	57	7	2	3	1	42	13	75	15	238
MGPgI	2		1	2	7	1		1		7	1	2		24
MCPgI			4	1	5	1				1	1	6	1	20
MGEcI					2						1			3
MXI					1		1							2
MPPgI	2	1	3	2	11		1			8		1		29
MJI					2									2
XozI					3	1						1		5
SredU										1				1
TartuU											1			1
TasU					1									1
TbilU		2	6		2	1			1	6	2	3		23
Theat							3							3
TomU										1		2		3
UkrAON			1	1	6		1				1	5	3	18
Ural'U					8		2	1		1	1	3		16
UzbU													3	3
Xar'kovU												3		3
	22	24	48	38	245	44	28	10	5	188	55	234	37	978
	2.2%	2.5%	5%	3.9%	29%	4.5%	2.8%	1%	0.5%	19%	5.6%	23%	3.7%	

Causality in Marxist-Leninist Philosophy", "Possibility and Necessity as Categories of the Materialist Dialectic", "Dialectical Materialism on Reality and Appearance".

Dialectical Logic (Dialog) is supposed to differ essentially (but in a way which is not easy to understand) from 'bourgeois' logic. Here perhaps "formal" would be better, considering that formal logic has been taught in the SU since 1948, at least. It occupied 2.5% of the attention of young Soviet philosophers. Titles of interest: "Practice as the Criterion of Truth in Logic", "The Dialectical Nature of Fundamental Logical Forms", "The Fundamental Position of Marxism-Leninism on Logic".

Theory of Knowledge (Knowl). This 5% is devoted almost entirely to two topics: the nature of truth; elaboration and justification of the Leninist reflection theory of knowledge.

Philosophy of Science (Philsci) is a rather wide-ranging 3.9%. They are, for the most part, defences against or attacks on "present-day idealism in physics and biology". Examples: "Marxist-Leninist Teaching on Space and Time" "Contemporary Views on the Structure of Matter in the Light of Dialectical Materialism".

HISTORICAL MATERIALISM (Histomat)

Marxist Theory of Social Development (Devel), constituting 29% of the total, is very interesting for the light it sheds on the questions which seem to be uppermost in the minds of Soviet thinkers. Examples of the most frequently recurring titles are: "Critique and Auto-Critique – An Important Characteristic of Soviet Democracy", "Soviet Patriotism as the Highest Expression of Proletarian Internationalism", "The Role of the Soviet Government in the Erection of Communism in the U.S.S.R.", "Soviet Democracy – A Democracy of the Highest Type", "The Philosophical Bases of the Political Strategy and Tactics of the Communist Party", "The Dialectic of Forces of Production and Relations of Production under Socialism", "The Role of the Cultural-Technical Progress of Work in the Elimination of the Basic Differences between Mental and Physical Work in the U.S.S.R", "On the Extermination of the Essential Differences between the Urban and the Rural in the Period of Gradual Transition from Socialism to Communism", "The War against the Remnants of Capitalism in the Consciousness of the Soviet People".

Sociology (Soc). The function of Soviet Sociology is the recording and interpretation of the operation of the laws of Historical Materialism in specific historical instances (see *VF* 58, 8, 126–130). This 4.5% is principally devoted to considerations of the 'Soviet soul' and its reaction to the Communist experiment. E.g. "The Role of the Subjective Factor in the Realization of the Objective Law of the Socialist Revolution in Russia", "The Importance of the Political Education of the People for the Construction of Communism", "Social and Personal Interest Under Socialism".

Art and Literature (Art). 2.8%. E.g." The Leninist Principle of Party-mindedness in Literature and Art", "Bolshevik Ideology – The Basis of Soviet Art".

Ethics (Eth). This 1% is devoted to questions of Communist morality and, marriage and the family under Communism.

Atheism and Religion (Athrel). This mere 0.5% is devoted principally to discussions on what is to be done with the remnants of religious spirit which persist in the minds of the Soviet people. E.g. "Religious Remnants in the Consciousness of the Soviet People and the Elimination of them", "Marxism-Leninism on the Methods of Eliminating Religio-Idealistic Remnants in the Consciousness of the People". An exception to this trend is, "Marxism-Leninism on the Origin and Class-Character of the Christian Religion".

HISTORY OF PHILOSOPHY (Histophil)

Classics of Marxism-Leninism (Classics) form a surprisingly small 19% of the total. Included in this section are theses on the works of Marx, Engels, Lenin and Stalin. Citation of sample titles would be superfluous since essentially the same topics are considered as in Devel with the added nuance that these are established by open appeal to the authority of the classics.

Philosophy of the West (West). Disappointingly enough this 5.6% is almost wholly devoted to contemporary, non-Communist left-wingers. Aristotle is mentioned once; Plato not at all. There is no mention of Thomas Aquinas, one of Avicenna. The discussion of the philosophy of Hegel is concentrated on the historical aspect. E.g. "The Philosophy of Hegel as Ideal Reflection of the Peculiarities of the Historical Develop-

ment of Germany at the Beginning of the Eighteenth Century and End of the Nineteenth Century", "The Critique by the Classics of Marxism-Leninism of the Reactionary Social Views of Hegel as an Aristocratic Reaction to the French Bourgeois Revolution of 1789–1794 and to French Materialism of the Eighteenth Century". In reference to Feuerbach we find "Marxist Critique of the Materialism of Feuerbach", "The Classics of Marxism-Leninism on Feuerbach's Materialist Theory of Knowledge".

Russian Philosophers (Russ). 23% makes this section the second in size but the names of some of the men here classified as philosophers makes one wonder as to the amount of history or philosophy contained therein. The most frequently appearing names: Herzen, Černyševskij, Pisarev, Lomonosov, Belinskij. Of more recent notables, Mičurin and Pavlov and their respective schools are the most mentioned.

The thirteenth and final column of this table contains the 3.7% whose titles, e.g. "From the History of the Armenian Forward Social-Political Thought of the Second Half of the Eighteenth Century", did not seem to warrant them a place in any of the other categories. Most of them concern the history of cultural minorities in the Soviet Union or the 'peoples' democracies'.

Table B shows the output of each institution for each list. Two items are to be noted. First, the 1948/51 column embraces three academic years for all the institutions except the University of Moscow whose theses were dated 1950/51 in *Voprosy Filosofii*. Therefore, secondly, it is not possible to determine how exhaustive these lists are. But, exhaustive or not, they do reveal several interesting facts.

The contributions of the Big Three (AON, IF, MGU) to the list of 1947 make up 80.3% of the total and 100% came from institutions located in and around Moscow.

In the list of 1948/51 the figures are: 92.9% for the Big Three, the rest coming from outside the capital with the exception of one from VP.

By the publication of the 1951/52 list, the emphasis had begun to shift from the capital to the provinces. Only 58.6% came from the Big Three; a total of 71.4% from the Moscow area.

The list of 1953/54 shows 48.7% for the Big Three; 63.9% from the capital.

The list for 1947 contains six institutions which showed signs of philo-

TABLE B

	1947	1948/51	1951/52	1953/54	Totals
AON	32	128	34	52	246
Artil			34		1
AzerU		2	1	7	10
AzerP				1	1
BeloU			2	9	11
BeloAON				1	1
VoronU			2	1	3
VP		1	5	19	25
VPŠ				4	4
Gor'kovU				2	2
ErevanU				6	6
IF	10	67	25	37	139
IrkutU			2	2	4
KazanU				2	2
KazaxU			1	2	3
K			1		1
KGU		1	3	28	32
KGPgI			3		3
LGU		7	23	49	79
LGPgI		1	2	7	10
MGU	11	28	60	139	238
MGPgI	2		8	14	24
MCPgI	10		2	8	20
MGEcI	1		1	1	3
MXI				2	2
MPPgI			7	22	29
MJI				2	2
XozI		2	3		5
SredU			1		1
TartuU			1		1
TašU			1		1
TbilU		3	4	16	23
Theat			3		3
TomU			1	2	3
UkrAON			4	14	18
Ural'U			2	14	16
UzbU				3	3
Xar'kovU				3	3
Totals	66	240	203	469	978

sophical activity. That figure for the 1948/51 list is ten; for the 1951/52 listing it is 28; finally the 1953/54 list contains 30.

TABLE C

	1947	1948/51	1951/52	1953/54	Totals
Matdia	2	6	2	12	22
Dialog		7	4	13	24
Knowl	2	10	6	30	48
Philsci		17	5	16	38
Devel	15	43	43	144	245
Soc	7	15	9	13	44
Art		5	9	14	28
Eth		1	4	5	10
Athrel		3	1	1	5
Classics	12	54	52	70	188
West	6	19	9	21	55
Russ	21	59	52	102	234
Misc	1	1	7	28	37
Totals	66	240	203	469	978

Table C shows the frequency with which each of the twelve subjects appeared.

From the beginning, three of the subjects dominate the scene. In the first column, that of 1947, Russ leads with 31.8%, followed by Devel with 22.7% and Classics with 18.1%. The list from 1948/51 shows: Russ 24.5%, Classics 22.4% and Devel 17.9%. For the 1951/52 list the figures are: Russ and Classics 25.6% and Devel 21.1%. For the list of 1953/54, Devel 30.7%, Russ 21.7%, Classics 14.9%.

There is some indication that the theses tend to follow the important questions of the day but because of the time lag between the conception of a dissertation and its publication it is impossible to do more than point out a few of the more striking trends.

Devel. The 1947 list contains general discussions of familiar Communist themes on government, Socialism, etc. In the list of 1948/51 the emphasis is rather on the functioning of the Soviet government during World War II and the devotion given it by the people. A few theses concerning the intelligentsia make their appearance in this section. Critique and Auto-Critique and the problem of the discrepancy between mental and physical work occupy the center of attention for the theses of 1951/52. In the list of 1953/54, discussions on the structure of the Soviet government are to the fore. The problem of mental and physical work and of

the place of the intelligentsia occupy even more space than in 1951/52 and the question of the relation of language and thought makes its appearance. *Classics.* Throughout this section the names of Lenin and Stalin, linked together, predominate. In the 1951/52 section, the names are for the most part separated and that of Stalin predominates. In the fourth section, 1953/54, the names are again separate but occur with equal frequency.

ABBREVIATIONS

AON	Akademija obščestvennyx nauk pri CK KPSS (Academy of Social Sciences of the Central Committee of the Communist Party of the Soviet Union).
Artil	Akademija artillerijskix nauk (Academy of Artillery Sciences).
AzerU	Azerbajdžanskij gosudarstvennyj universitet (Azerbajdjan State University).
AzerP	Institut istorii i filosofii AN Azerbajdžanskoj SSR (Institute of History and Philosophy of the Azerbajdjan SSR).
BeloU	Belorusskij gosudarstvennyj universitet (White-Russian State University).
BeloAON	Otdelenie obščestvennyx nauk AN Belorusskoj SSR (Department of Social Sciences of the AN of the White-Russian SSR).
VoronU	Voronskij gosudarstvennyj universitet (Voron State University).
VP	Voenno-političeskaja akademija (Military-Political Academy).
VPŠ	Vyssaja partijnaja škola pri CK KPSS (High Party School of the CC of the CP of the USSR).
Gor'kovU	Gor'kovskij gosudarstvennyj universitet (Gor'kov State University).
ErevanU	Erevanskij gosudarstvennyj universitet (Erevan State University).
IF	Institut filosofii AN SSSR (Institute of Philosophy of the Academy of Sciences of the USSR.)
IrkutU	Irkutskij gosudarstvennyj universitet (Irkutsk State University).
KazanU	Kazan'skij gosudarstvennyj universitet (Kazan' State University).
KazaxU	Kazaxskij gosudarstvennyj universitet (Kazak State University).
K	Kiev.
KGU	Kievskij gosudarstvennyj universitet (Kiev State University).
KGPgI	Kievskij gosudarstvennyj pedagogičeskij institut (Kiev State Pedagogical Institute).
LGU	Leningradskij gosudarstvennyj universitet (Leningrad State University).
LGPgI	Leningradskij gosudarstvennyj pedagogičeskij institut (Leningrad State Pedagogical Institute).
MGU	Moskovskij gosudarstvennyj universitet (Moscow State University).
MGPgI	Moskovskij gosudarstvennyj pedagogičeskij institut (Moscow State Pedagogical Institute).
MCPgI	Moskovskij gorodskoj pedagogičeskij institut (Moscow City Pedagogical Institute).
MGEcI	Moskovskij gosudarstvennyj ekonomičeskoj institut (Moscow State Economics Institute).
MXI	Moskovskij institut narodnogo xozjajstva (Moscow Institute of Popular Economy).

MPPgI	Moskovskij oblastnoj pedagogičeskij institut (Moscow Provincial Pedagogical Institute).
MJI	Moskovskij juridičeskij institut (Moscow Institute of Jurisprudence).
XozI	Institut narodnogo xozjajstva (Institute of Popular Economy).
SredU	Sredneaziatskij gosudarstvennyj universitet (Central Asian State University).
TartuU	Tartuskij gosudarstvennyj universitet. (Tartu State University).
TašU	Taškentskij gosudarstvennyj universitet (Taškent State University).
TbilU	Tbiliskij gosudarstvennyj universitet (Tiflis State University).
Theat	Gosudarstvennyj institut teatral'nogo iskusstva (State Institute of Theatre Arts).
TomU	Tomskij gosudarstvennyj universitet (Tomsk State University).
UkrAON	Otdelenie obščestvennyx nauk AN USSR (Department of Social Sciences of the AN USSR (Ukraine)).
Ural'U	Ural'skij gosudarstvennyj universitet (Ural' State University).
UzbU	Uzbekskij gosudarstvennyj universitet (Uzbek State University).
Xar'kovU	Xar'kovskij gosudarstvennyj universitet (Khar'kov State University).

NOTES AND COMMENTS

THE SINO-SOVIET CONFLICT

In an article entitled 'Dogmatizm čužd duxu marksizma-leninizma' (Dogmatism is Foreign to the Spirit of Marxism-Leninism), the editors of *Voprosy filosofii* (1963, 9, 3–10) castigate the leaders of the Chinese Communist Party for their philosophic deviations from the party-line. The accusations leveled by the Soviets against their wayward brethern can be summarized in ten points:

1. The Chinese Communist approach to the analysis of social development is non-dialectical, i.e. metaphysical. They forget Lenin's behest that things are to be viewed (a) historically, (b) in connection with other things, (c) in the context of concrete historical experience.

2. The Chinese Communists fail to correctly detect the contemporary contradictions which are decisive for a correct comprehension of the present situation.

3. Though verbally pledging allegiance to the unity of theory and practice, they understand this foundation stone of Marxism-Leninism not in the sense that practice is the basis of knowledge and the criterion of truth, but by bringing new examples to illustrate old truths.

4. Chinese Communist dogmatism is marked by the use of abstract judgements which ignore the concrete circumstances and means which determine contemporary events.

5. These dogmatists are constantly underestimating the dialectic of development which alone permits correct decisions in function of changing circumstances.

6. They retain and aggravate the 'cult of personality' and all of its nefarious results.

7. Adding a new twist to the arsenal of dogmatism, the Chinese Communists are noted for their inability to stick to previous unanimous decisions.

8. Nationalism is another disturbing note of these dogmatists.

9. The Chinese Communists refuse to make a careful analysis of the multifarious and complex bonds of the relations of social life; they oversimplify – and this systematically.

10. Finally, their most profound error is a wrong estimate of the objective laws of the development of the world-wide socialist camp

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leading to an over-estimate of the strength of imperialism and an emphasis on the necessity of war.

The entry on Mao Tse-Tung has been dropped from the new edition of the *Filosofskij slovar'* (Philosophical Dictionary, see the review on page 70). It would be interesting to know if the Chinese Communist philosophers will deign a systematic answer to Mitin *et al.* *T. B.*

PHILOSOPHICAL QUESTIONS CONCERNING CONTEMPORARY NATURAL SCIENCE

The first meeting of the editors of the philosophical journals in the Communist countries took place in Leipzig last year. The members decided on the annual repetition of this meeting which is devoted to the exchange of experiences and to the coordination of the work of these journals. This year's session took place at Liblice (near Prague). In addition to the discussion of technical details there were two philosophical reports, the first dealing with the subject 'Problems of the Development of Socialist Consciousness' (delivered by the Bulgarian candidate of science S. Mixailov). The second report, 'Philosophical Questions concerning Contemporary Natural Science' by B. M. Kedrov (*VF*, 1963, 10, 123), deserves some comment here.

Kedrov's report consists of three parts, the first being of minor interest as it bears a merely introductory character. Kedrov states that the revolutionary phase of modern physics which began at the end of the 19th century is not only far from being terminated but, on the contrary, has become still more intense both with respect to the rapidity of development of new concepts and to the philosophical importance of the new aspects of nature revealed by modern science. Kedrov affirms that the interest in the philosophical questions of natural science increases proportionally to the social importance of science. Underlining the role of cybernetics and atomic physics he writes: "The immense scientific and technical revolution, which mankind is experiencing now, poses the problem of the automation of the whole process of production and, in connection with this, a remarkable science – cybernetics – is to be developped; there is a new energetics based on the broader and broader utilization of nuclear energy, on the solution of the problem of controlling the thermonuclear processes."

Starting from the conviction that "in our time it is only on the basis of large generalisations of the results of the progress of both social and natural sciences that the development of Marxist philosophy, the elaboration of its laws, principles and categories, the discovery of the relations and transitions between them is possible", Kedrov regrets that, nevertheless, materialist dialectics is still far from satisfying the demands of the present.

Passing from these general remarks to the essential part of his report, Kedrov points out what – in his opinion – are the two most important directions of the development of contemporary natural science. These are: (a) A unified theory of all physical phenomena; (b) The chemical synthesis of living organisms.

With respect to (a) Kedrov interprets the totality of observational data in microphysics and macrophysics as the verification of the dialectical principle of the unity of nature. It should be remarked that Kedrov's argument that "by penetrating into the structure of quantitatively different objects of nature, science observes the generality of constitution and, consequently, the unity of nature" is – at least in this primitive formulation – not true. Therefore, the qualitative differences effectively existing between microobjects and macroobjects are interpreted as exemplifications of the second central principle of dialectics: the development of nature. Alluding to Heisenberg's efforts to construct a unified field theory, Kedrov insists on the indispensability of this second principle. "The avoidance of a mechanical unification of all the complicated material forms into a most simple one on the one hand, and the avoidance of the research for some absolutely simple, unanalysable form of matter *(prima materia)* on the other, is possible by means of a scientifically founded supplement to the principle of the unity of nature by means of the principle of its development".*

The third part of Kedrov's report is concerned with the philosophical implications of biology. In opposition to his procedure in the discussion of the unifying tendencies in theoretical physics, he criticizes a group of scientists who are inclined to comprehend "the essence of life, the essence of heredity and other biological phenomena by 'purely' biological

* Readers who are especially interested in physics should consult Sviderskij's excellent presentation of the controversy about the possibility of a unified field theory in his book *Filosofskoe značenie prostranstvenno-vremennyx predstavlenij v fizike*, Leningrad, 1956, Chapter 11.

means without using the methods of physics and chemistry, of mathematics and cybernetics, and even of biophysics". Assuming that "mankind is approaching the real (but not definitive solution of the problem of biosynthesis and the discovery of the mechanism of heredity", Kedrov seems to regard life merely as the result of the extraordinary complexity of certain chemical substances, i.e. to discard the qualitative difference between life and anorganic matter, whereas he rejected in the field of theoretical physics "the mechanical unification of all the complicated material forms into a most simple one". For the philosophical discussion of biological phenomena cybernetics is of dominating interest. "The development of cybernetics poses complicated philosophical questions. Among these there is, for instance, the problem of the uniformity and generality of the laws according to which different systems (computers, organic cells and the thinking brain) are functioning."

The development of contemporary natural science as a whole exhibits a more and more dialectical character insofar as we observe in it two opposite tendencies – the one being directed towards a progressive integration, the other towards differentiation. This second tendency leads to intermediate branches of science which form the transition between formerly disparate sections.

We renounce the communication of further details of the editors' meeting. The themes for the next such meeting (in 1964) will be (a) logic of scientific investigation; (b) dialectics of the development of the socialist society; (c) methodology of concrete social investigations.

Obviously, natural philosophy is totally missing from this program.

Hölling

In *Novye knigi* 1963, 48 is announced the publication in 75 000 copies of the classic work of A. A. Fridmann (Friedmann), *Mir kak prostranstvo i vremja* (The World as Space and Time). The book is marked by the publishing house as especially interesting, and Fridmann is designated in the announcement as "the genius Russian physicist, mathematician and theoretician of mechanics, creator of relativistic cosmology". When one thinks that his theory of the expanding universe was rejected – until 1956 – by the official Soviet philosophy as incompatible with Diamat, then this new publication of Fridmann's book is sign of the progress which has taken place since then. *S. M.-M.*

PHILOSOPHY IN THE SOVIET UNIVERSITIES

For the academic year 1960/61 the forty Soviet universities had 248962 students. The four existing faculties of philosophy had the following numbers of students:

	Year						'diplomniki'	total
	First	Second	Third	Fourth	Fifth	Sixth		
Univ. of Leningrad	188	86	57	48	39	—	17	435
Univ. of Moscow	347	145	109	77	124	57	—	859
White Russ. Univ.	27	23	—	—	—	—	—	50
Univ. of Tiflis	24	19	13	10	—	—	—	66
Totals	586	273	179	135	163	57	17	1510

The *Vyssee obrazovanie v SSSR* (Higher Education in the USSR), published by the Gosstatizdat (Moscow, 1961) does not list the professors of philosophy separately. But it does provide statistics on 'scientific workers *(naučnye rabotniki)*' in 'history and philosophy'. Whereas the number of teachers rose from 11136 in 1950 to 19831 in 1960, the number of 'aspirants *(aspiranty)*' in these disciplines decreased from 2607 to 1726. *T. B.*

The following comparison may be of interest. In Switzerland (roughly 5 million inhabitants) there were, in 1961, 9 Universities (7, if we omit the Polytechnical School of Zürich and the Commercial School of St. Gall) with 21249 (16731) students, about $4^0/_{00}$ ($2.7^0/_{00}$) of the population. The corresponding figure for the SU is about $1.14^0/_{00}$. No figures are available as to the number of students in philosophy in Switzerland. However, in Fribourg, which has the largest number of students in philosophy, at least 200 attend lectures in philosophy, and approximately 50 of them specialize in it. If we multiply that last figure by 3 (which is,

probably, an understatement), we obtain something like 150 students of philosophy for 4000000 inhabitants, or 30 per one million. In the SU the proportion is 1 500 in 220000000 i.e. approximately 7 per one million. Of course, Switzerland is one of the leading countries as far as the number of students in philosophy is concerned and includes in the field a great many foreign students. On the other hand, at least a part of the 823 students of Theology in Swiss Universities should be taken into consideration; for in the SU they would be students of philosophy. It seems from this comparison, that the SU is by no means an over-developed country, as far as the number of students of philosophy is concerned. (Data for Switzerland from: *Schweizerischer Hochschullkalender*, 98. A., 1960/61, 142 Ss.) *J. B.*

JUGOSLAVIA

At the annual meeting of the Jugoslav Society of Philosophy in November 1962, the president of the society, Prof. Mihajlo Markovič, was able to report the following:

"The first which anyone who objectively follows the development of our philosophic thought must notice immediately is the diversification into innumerable tendencies and directions... Two or three years ago one could talk of the three or four main tendencies in our philosophy. We had, for example, an orthodox tendency, a scientific trend and an anthropological-humanist movement... The first thought they were saving Marxism from revisionism, while the others accused them of dogmatism. The second group held that the further development of Marxist thought consisted in the integration of the results of contemporary science and methodology; they were accused of being positivists, preaching 'scientism'. The return of the third group to Marx' primitive thought earned them the stamp of existentialism. Today these groups have already split up... In reality it is not easy to say what this preponderance of the centrifugal over the centripetal should mean."

For Prof. Markovič, this situation is symptomatic of the development of the country and he is fully conscious of the advantages and the disadvantages of it for Marxism-Leninism. He has, however, confidence in the most capable and gifted cadres "who split up precisely because they wish to develop something new and personal". Serious and lasting

discussions between the different trends is necessary "and what is, above all, important", continues Prof. Markovič, "is the establishment of principles in which we sum up in how far we purport to be the followers of Marx". (*Filozofija* 1962, 3, 123–125).

Among other things, it appears from the administrative report that Jugoslav philosophers are more and more interested in contacts with other countries. This also includes the publication of their works in other languages, in the *sbornik* style *L. V.*

CONFERENCE ON PHILOSOPHIC PROBLEMS OF MICRO-PHYSICS

According to *VF* 1963, 7, 145–149, there was – 'some months' previous to this report – a conference in Kiev on philosophic problems of micro-physics. Among the sponsors the Scientific Council of the AN SSSR for the Problem of "Philosophic Questions of Modern Science" makes its first appearance. Participants included some 300 physicists and philosophers of the USSR as well as a series of guests from Moscow, Leningrad and Minsk. Of philosophical interest was a discussion of the concept of matter. Petrušenko (Kiev) asked for a precise philosophical definition of matter, anti-matter and field. The existing epistemological definition needs, according to Petrušenko an ontological complement wherein would be expressed the ability of matter to be cause of an effect. Kopnin (Kiev), on the contrary, defended the official standpoint that the objective content of the concept of matter comes to light only through the solution of the 'basic question of philosophy'. Recently some authors have tried to widen the existing definition of matter by constructing additions. The inclusion of such so-called ontological moments leads either to metaphysics – i.e. to speculations of philosophy of nature which sooner or later elicit a conflict between philosophy and science, or to a confusion of the philosophic concept of matter with scientific facts on the structure of matter. More will follow on the other contributions to this discussion.

S. M.-M.

The new *Philosophic Dictionary* (see Reviews page 70) has an entry on 'Soviet Marxist Philosophy' which is interesting for the light it throws on what contemporary Soviet philosophers think of each other and constitutes a sort of honor-roll. The following are included: B. G. Anan'ev,

V. F. Asmus, K. S. Bakradze, M. P. Baskin, Ju. B. Borev, B. É. Byxovskij, B. A. Čagin, V. P. Čertkov, D. I. Česnokov, A. M. Deborin, M. A. Dynnik, A. G. Egorov, P. N. Fedoseev, V. A. Fomina, G. P. Francev, G. M. Fridlender, G. M. Gak, G. I. Glezerman, D. P. Gorskij, É. V. Il'enkov, L. F. Il'ičev, M. T. Iovčuk, S. A. Janovskaja, B. M. Kedrov, É. Kol'man, I. S. Kon, F. V. Konstantinov, P. V. Kopnin, G. A. Kursanov, I. V. Kuznecov, A. N. Leont'ev, Ju. A. Levada, M. A. Lifšic, A. O. Makovel'skij, Ju. K. Mel'vil', M. B. Mitin, X. N. Momdžjan, I. S. Narskij, T. I. Ojzerman, M. É. Omel'janovskij, M. F. Ovsjannikov, P. S. Popov, S. L. Rubinštejn, M. N. Rutkevič, E. P. Sitkovskij, Z. V. Smirnova C. A. Stepanjan, V. I. Sviderskij, A. G. Spirkin, I. Ja. Ščipanov, A. F. Šiškin, P. V. Tavanec, B. M. Teplov, O. V. Traxtenberg, V. P. Tugarinov, B. C. Ukraincev, E. K. Vojšvillo, and A. A. Zinov'ev. A notable omission: M. M. Rozental', one the editors of the book. Less notable is the absence of G. F. Aleksandrov, who has remained, after his 1947 condenmation, more active than Deborin. *T. B.*

THIRTEENTH INTERNATIONAL PHILOSOPHICAL CONGRESS

P. Fedoseev publishes a report on the XIIIth International Congress of Philosophy in the *Kommunist* (1963, 16, 37–47) under the title: *Toržestvo materializma i upadok buržuaznoj filosofii* (Triumph of Materialism and Downfall of Bourgeois Philosophy). The report contains, along with very 'classical' expressions of self-satisfaction, several interesting bits of information. There were, according to the author, 18 philosophers from the SU, three each from Czechslovakia and Rumania, two each from Eastern Germany and Poland, one form Hungary. The following names are quoted: F. V. Konstantinov, G. A. Kursanov, Ju. K. Mel'vil', M. N. Rutkevič, V. F. Perederij, V. A. Čagin, T. I. Ojzerman, V. A. Štejnberg, G. A. Brutjan, N. I. Grašenkov, S. T. Meljuxin (to which P. Fedoseev, himself, M. B. Mitin and, if the author of this note is correct, A. F. Šiškin must be added). Among non-Soviet Communist philosophers K. Kosik and L. Svoboda from the ČSSR, A. Roja from Rumania G. Heiden from Eastern Germany are mentioned. No mention is made of the philosophers from Poland (T. Kotarbiński and A. Schaff), both of whom played a rather prominent role in the Congress.

As already stated, Professor Fedoseev seems to be very pleased both by

the low quality of the papers offered by the non-Communist philosophers and by the excellency of those presented by his colleagues. The present author is partly in agreement with him on the first statement. He thinks, however, that the unsatisfactory level of many among the public papers (read at the plenary sessions) was due rather to two rather accidental causes: first, the congress took place so far away from Europe, which is still the major center of philosophical research, that only a small subclass of philosophers from that part of the world could attend; in fact, they were hardly 100 altogether. Second, the organizers of the Congress did not succeed in obtaining papers from philosophers who are really representative of contemporary American and European thought. To quote just one instance, not a single leading representative of the analytic trend of thought read such a paper. Also, it seems that much valuable work has been done in the (badly organized) section for free papers. Yet, if one were to take into consideration only the papers read in the plenary session, his impressions might have been similar to those of Professor Fedoseev concerning non-Communist philosophy.

However, it is difficult to agree with him on the second point, on the Soviet contributions. Professor G. L. Kline examines them in a report on 'Soviet Philosophers at the thirteenth international philosophy congress' *The Journal of Philosophy* 50, 1963 (23), (738–743). He makes the following statements:

1. "...members of the Soviet delegation said nothing that was new to anyone familiar with the works of Marx, Engels and Lenin, and with recent Soviet policy pronouncements" (738).

2. If most of the Soviet papers were not as abusive as that of Yu. (or J.) Ždanov (another name to be added to the above list), "Soviet philosophers were concerned to discredit contemporary 'bourgeois' philosophy as 'irrationalistic' and 'antihumanistic'". In that context Professor Kline states that Mitin defended in Mexico a most abusive article of A.F. Okulov in the *VF* 1963, 7, 110–114, where E. Kamenka is said to be a 'troubadour of anti-Communism', whose 'malicious slanders ... are motivated by 'animal hatred' and whose article is characterized as 'cheap scribbling' and a 'sickening concoction' (740). He recalls, in that context, similar treatments applied to Th. Blakeley, D. Joravsky and T. Tucker.

3. Kline quotes Fedoseev as having denied the possibility of the co-

existence of ideas, i.e. as Kline adds, "he stood for the "limitation of free exchange of ideas" (742). He thinks that the policy, relaxed hesitantly in 1956–1957, has now been firmly re-asserted.

4. The author finds that the central claim of Soviet philosophers in Mexico, that the Soviet Union is the only truly "humanistic" country completely unwarranted and cites the argument in favour of this really amazing thesis: e.g. the growth of industrial output is given by Mitin as evidence that freedom and dignity of the individual is fully respected there. It must be added that such was, unfortunately, the level of most Soviet papers read in Mexico. *J. B.*

The names given by the editors in the section on "Contemporary Marxist Thought Abroad" in the new *Filosofskij Slovar'* (see Reviews on page 00) are those of the philosophers in the West who have *inter alia* "defended the progressive philosophical tradition" and "exposed anti-Communist propaganda" as well as of the philosophers in the peoples' democracies who have advanced Marxist-Leninist thought. Among the former are: G. Besse, J. Canape, A. Denis, R. Garaudy, Langevin, G. Politzer, M. Thorez, and P. Vigier (France); M. Cornforth and J. Vernal (England); A. Gramsci, L. Longo, E. Sereni and P. Togliatti (Italy); Janagida Kendzjuro and Sakata Sejti (Japan); B. Dunham, W. Foster, D. Furst, G. Selsam and G. Wells (USA). These who have merited mention from the socialist camp are: G. Dimitrov, T. Pavlov, Polikarov, and Pribadžakov (Bulgaria); J. Bodnar and L. Svoboda (Czechoslovakia); Beck, A. Cornu, Gropp, G. Klaus, G. Ley, E. Mende, G. Scheler and E. Thalmann (GDR); B. Fogaraš and L. Janossy (Hungary); A. Schaff and Žulkerski (Poland); K. Gulian (Rumania).

P. Beemans

B. M. Kedrov's *Predmet i vzaimosvjaz' estestvennyx nauk* (Object and Interrelation of Natural Sciences. Moskva. Izd. AN SSSR. 1962. 410 str.) is the first volume in a projected ten-volume series, "Dialectical Materialism and Contemporary Science". The project is expected to take about eight years and is sponsored by the Institute of Philosophy and the Scientific Soviet for Philosophical Problems of Natural Science. *T. B.*

Ervin Laszlo, a collaborator of the IEES, has lectured on aesthetics in Budapest on November 15, 1963. The text of his lecture was published

(january, 1964) in the Hungarian journal for philosophy and social science, *Valóság* (Reality), under the title 'Az intencionalitás szerepe az esztétika elméletében' (The Role of Intentionality in Aesthetic Theory). Several comments by Hungarian aestheticians are now in preparation.

J. B.

REVIEWS

V. I. Lenin's *What is to be done?* Translated by S. V. and Patricia Utechin, edited with an introduction and notes by S. V. Utechin. Oxford, Clarendon Press. 1963. IX + 213 pp. (25/–).

A very readable and well-done translation of one of the most important works of Lenin, preceeded by an introduction. In this the editor outlines the situation in Russia at about 1900 (pp. 2–11) and explains the reasons which moved Lenin to write the book (pp. 11–15). He then offers a summary of the principal doctrines contained in *What is to be done?* (pp. 15–27), studies their origin (pp. 27–33), and discusses the influence of the work on posterity as well as other views of its significance (pp. 33–36).

The content of *What is to be done?* belongs entirely to what is called, among Communists, "scientific socialism" and has, directly, little to do with philosophy. However, its indirect relevance for philosophy is considerable from two points of view. On the one hand, it is one of the best, so-to-say, self-presentations of Lenin, that of his basic attitude, which must be grasped if anything in his philosophical work has to be understood. On the other hand (and as such the work is, in a way, even more strictly connected with the study of philosophy), it contains one of the best formulations of a general theory of thought, which applies, of course, to philosophy also. It is within the frame of that theory that Lenin moves, e.g. in his *Materializm i émpiriokriticizm.* Because of that, the publication of a good translation of the work is to be welcomed. For in *that* point the attitude assumed and the theory professed by all Communists are not only inspired by, but even simply derived from the present book.

The editor committed, however, a most regrettable mistake in publishing an abridged edition. For one, he follows "in the main" (how far?) the second (1907) version done by Lenin himself. And, worse still, "Lenin's procedure of 1907" (Lenin shortened the text) has been carried farther in that some more passages of purely historical interest have been omitted. (p. V). It is explained that the omitted passages are chiefly (again, in how far?) "details of polemics that are of no particular relevance to the main line of argument" (*ibid.*) The omission of foot-notes has not even been indicated. So we have to deal with an edition *ad usum Delphini.* The editor himself recommends the reading of the same work in the Moscow *Collected Works* to anyone wishing to know the full text.

This is regrettable, because it is an arbitrary procedure which prevents any serious student of Lenin from using the text. For whom, then, is the translation destined? The present reviewer must confess that he is at loss as to the answer to that question. There are enough digests of Lenin prepared according to some subjective criteria by the Communists – and it seems a pity that much work has been used in preparing another such digest, perhaps a much better

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one, but still a digest, not a scholarly text, which the translators were very able to provide.

This is partly redeemed by the excellence of the introduction, which gives an accurate and vivid picture of the content of the book, the circumstances in which it was written and its importance.

J.M. Bocheński

Philosophy, Science and Man: The Soviet Delegation Reports for the XIII World Congress of Philosophy. Moscow, The Academy of Sciences of the U.S.S.R. 1963. 174. pp.

This volume contains halting English translations of ten of the papers presented by the Soviet delegation at the XIII International Congress of Philosophy which took place in Mexico City on September 7–14, 1963. The book, printed in an edition of 1600 copies, was distributed free to the entire Congress audience during the Plenary Session meeting at which Professor Mitin presided. Since the volume was thus obviously intended primarily as a propaganda device, it is not surprising that none of the articles contain anything new or original. The collective purpose of the papers was evidently to present a panorama of Soviet philosophy by dealing with broad questions in several areas. In general the papers on the philosophy of science come out a notch above the others.

P. N. Fedoseev, M. B. Mitin, F. V. Konstantinov and T. I. Ojzerman each presented a paper dealing with 'man'. In these the themes of Communism, humanism, alienation and peace are predictably interwoven with passing references to the inadequacy of existentialism, positivism, and neo-Thomism. The claim is made and remade that only under Communism can man's alienation be overcome and can man achieve his complete all-round development. But in none of the papers is there any philosophical argument in defense of such assertions, nor is there any philosophical problematic. The meaning of the term 'man' is not developed beyond Marx's thesis that man is the aggregate of social relations. Accordingly the discussions concern themselves not with man as a person with interiority and personal worth but only with man as a social being. Ultimately they deal not with man at all, but with society.

Of the four papers dealing with science M. E. Omel'janovskij's ('The Concept of Dialectical Contradiction in Quantum Physics') and S. T. Meljuxin's ('Dialectical Materialism and the Philosophical Problems of Microcosm') show technical competence in their grasp of contemporary physics and present a good summary of some present disputes concerning interpretation. Their claims, however, that nature is dialectical and that dialectical materialism gives the only possible consistent interpretation of contemporary science are by no means substantiated. The latter theme is reiterated in papers by G. A. Kursanov and P. V. Kopnin dealing with dialectics as the logic of science.

Of the two remaining papers, X. N. Momgian's presents Marxism-Leninism as an optimistic philosophy in a pessimistic age and M. N. Rutkevič repeats this theme and blandly claims that realistic art (in opposition to abstract art) as a reflection of the world is in harmony with the growth of science.

For anyone unfamiliar with contemporary Marxist-Leninist philosophy the volume is a representative introduction. For anyone interested in philosophical problems, however, there is nothing to be learned from it.

Richard T. De George

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Filosofskij slovar'. Pod redakciej M. M. Rozentalja i P. F. Judina. Izd. Polit. Literatury, Moskva. 1963. 544 pp.

This is an important publication. It is presented as replacing the *Kratkij Filosofskij Slovar'*, first published in 1938, of which the fourth edition appeared nine years ago, in 1954, by the same editors. The title has been changed, however. It is no more a *short* dictionary, but simply a *dictionary* of philosophy, about twice as large as its predecessor. Like the former volume, it is intended for wide circulation – 400000 copies are announced, of which 200000 are printed. (The *Short Dictionary,* 4th ed., had 1500000 copies announced, and the copy used by the present reviewer was one of the 250–400000 printed.) The paper used is much better and so are the typographical characters which, if smaller, are more readable than those of the former edition. Exteriorly, the main difference consists in the fact that about 180 Soviet philosophers are quoted at the beginning of the work as collaborators.

In the preface, the editors justify the new edition by the rejection of the "cult of personality", by the new Program of the Party, which they say "offers to every Marxist, and as well to philosophical science a number of new problems", and by the great development of the sciences. The present reviewer does not think that these reasons – excepted the first – were very relevant; there is relatively little in the volume about the "new problems" imposed on philosophers by politicians and the development of the sciences during the last nine years has not been as spectacular as is supposed. What appears in the body of the Dictionary is something different: namely, that the politicians and their representatives in philosophy did decide that what has long been known by scientists and true philosophers should be allowed to be expressed in some way.

So the result is a rather curious combination of two different things. The dictionary is, on one hand, a handy résumé of the official doctrines. The very enthusiasm of Messrs. Rosental' and Judin concerning Stalin and his friends (like Ždanov and Mao Tse-tung) in the past vouches for the correctness of the actual party-line in that respect. But at the same time the dictionary is a source of both factual and theoretical information in the field of philosophy and of its history. This second aspect of the book is significant and a comparison of the present text with that of the 1954 edition is very instructive indeed. In short, the improvement is considerable nearly everywhere, except where dogmatic theses are concerned.

This fact merits some consideration: it has been the present writer's opinion for some years that the great effort made in SU to develop philosophy and the large number of people working in the field will eventually lead to an improvement of the level of thought and of information. This will not necessarily be linked with the rejection of the dogmatic bases of Marxism-Leninism, but these very dogmatic principles will be, it was predicted, presented in a far better, more rational and more scholarly context. This is what has happened

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here. Nothing has been left out of the "basic faith" of Communism – thus, it is still a party-minded book with all consequences this entails. But, as said, that basic communist faith is now presented in a frame of far more solid knowledge and often formulated in a better way than it ever has been before in similar book.s And, of course, it had to be so. Things which might have been acceptable for the generation around Lenin, would hardly be so for people who have grown up in the SU and have often been trained in good universities. Eventually even the most tyrannic thought-master has to give way to some elementary needs of the cultivated masses, and so it has happened, at least partially. There are few books in which this appears as clearly as the present Dictionary.

This Dictionary is, moreover, not a work for specialists. It will be used during some years by most educated people in the SU and – as many translations will be probably published – by most Communists abroad. To all of them it will bring a wealth of knowledge which they hardly could find in any comparable Soviet book previously published.

We shall not deal here with the first, dogmatic aspect of the book, which is not of much interest. As to the second, the two outstanding novelties are the insertion of a large number of articles on History of Philosophy and of a somewhat smaller, but still substantial, number of texts on Formal Logic.

In History of Philosophy there are now several hundred articles devoted to the philosophers of the past and of the twentieth century. To give just a few examples of the first group, not only the leading philosophers, but also Aristarchos, Aristippos, Baumgarten, Bail, Hammann and both Humbolds have their own articles. Contemporary philosophy is particularly well cared for and one will find in the Dictionary useful information on most leading thinkers of our time. Thus, existentialism is represented by Marcel, Jaspers, Heidegger, Sartre, Merleau-Ponty and... Camus.

In those articles is found far less abuse and insult* than in the former edition. Also, and this is particularly relevant, all non-communist philosophers are no longer treated as belonging to one undifferentiated group of idealists! E.g. about Samuel Alexander, there is something which will make the reader suspicious of idealism with him, but at least the epithet is not explicitly applied. Plato, who was once described as the theoretician of slave-owning aristocracy and little more, gets now a fairly correct, if elementary presentation. This applies also to Heidegger, and even the Neo-Thomists are treated with something like a sort of understanding of what they are saying. Of course, the sharp distinction between "materialists" and "idealists" is an affair of Communist

* Not *all* insults have been suppressed. Both Fr. Wetter and the present writer are honored by special articles and both are said to be falsifiers of Soviet Philosophy. A falsifier is one, who wishfully gives to a document an interpretation he *knows* to be wrong. It is necessary to point out, that this is an accusation of scientific dishonesty, consequently a very grave moral accusation. As it is, in the present cases, completely unwarranted, it must be characterized as *slander*.

Faith and must be upheld; but some *nuances* are now used. One of the pleasant features is that Professor Tarski has ceased to be a malicious falsifier of logic in the spirit of Idealism. Apparently some Soviet philosophers decided – following the good example of Professor Tavanec – to *read* him. Better late than never! On the whole there is far less patent falsity and misinterpretation than in the former editions. This applies also to Karl Marx. If the article devoted to him does not show much improvement, there is at least a special article on "Alienation", quite a novelty.

The most impressive and positive addition to the volume are the articles devoted to formal logic. They are numerous, and generally competently written. It is not an exaggeration to state that there is not a single Western European dictionary of comparable size which would supply as much solid, if elementary, information on formal logic. As compared with the 1954 volume the progress is considerable, indeed.

The following texts will give some idea of the change:

1954	1963
Logistics – idealist and metaphysical tendency of mathematical logic, widely spread in contemporary bourgeois philosophy... Logistics perverts and falsifies the theoretical principles, the methods and the proofs of mathematical logic in the spirit of idealism and metaphysics... Logistics professes extreme formalism. It is a logic without content, without object, divorced from reality, from experience, from practice, from objective truth... (and more in the same style)	*Logistics* – First, logical calculi were called so. Leibniz often talks about Mathematical logic as of logistics.* The understanding of L as mathematical logic was rendered more firm at the philosophical Congress in Geneva in 1904 on the proposal of Itelsohn, Lalande and Couturat. (whole text)

This is, by the way, one of the very few titles on logic which may be found in both editions. The new edition has, for example, under "*A*", *Antilogism, Antinomy, Argument,* out of which only "Antinomy" is mentioned in the 1954 edition – and this article is there nearly completely devoted to Kant, without any mention of the modern problem – while the present work has at least at the end of the article a presentation of the logical antinomies.

All articles or parts of articles written by logicians are free from polemics and usually well written. We find also some – it must be said rather scarce – articles on logicians to mention only Boole, De Morgan, Frege, Russell,

* Historically wrong.

Łukasiewicz, Gödel, Tarski; Carnap, Peano and Schröder are missing; also, which is regrettable, the editors decided not to mention living Russian logicians, among whom at least Kolmogorov would have merited a mention. Porreckij and Žegalkin, on the other hand, are quoted.

Another positive aspect of the logical part of the work, is the lack of an offensive nationalism. The present reviewer found only one incorrect statement in that regard – in the article on Combinatory Logic, where Schönfinkel is said to have been a "Soviet logician" which he was not; "Russian" would have been correct.

But the very excellence of the logical section of the work makes some other contributions look all the worse. One seldom gets such a vivid impression of co-existence of scholarly learning with mythology as in this book. However, even in the parts concerning subjects far more strictly tied by official ideology, the progress is obvious. Not only nothing is said about such non-persons like Stalin and Mao Tse-tung, but – and this is really comforting – Mr. Khrushchov gets no article either. He is, of course, quoted occasionally, but is not said to be a genial theoretician in philosophy. Unfortunately, there still are a few articles which could be better omitted from a philosophical dictionary since they belong rather to politics: "Cult of Personality", "Peaceful Co-existence", "Party-character of Art", etc. While reading them and considering what happened to so many articles in the former editions of the *Dictionary*, one is reminded of the cruel words attributed to Kirchmann: *Ein Wort des Gesetzgebers und die ganze huristische Literatur wird zur Makulatur*". As a fact, that is what has happened to those older editions: they must be considered today as mere rubbish. Fortunately, at least some important parts of the new *Dictionary* are written in such a way that no decree of any tyrant can turn them into wasted paper.

Articles about Philosophy of Science and Theory of Knowledge are reviewed separately in the present issue.

J. Bocheński

There are – as far as can be seen – two scientific collaborators in this new dictionary: B. G. Kuznecov, historian of physics, and the astronomer G. I. Naan who set off the discussion on the relativity theory in 1951. There are the following new entries on natural science: real and potential infinity, annihilation, anti-particle, apeiron, bad infinity, biogenetic basic law, biology, immediate and removed action, theory of probability, matter and field, universe, higher neural activity, galaxy, genetic method, geometry, principle of complementarity, natural science, measure, invariance, information, classification of sciences, conventionalism, wave-particle dualism, cosmological paradoxes, cosmology, red-shift, theory of types, irreversibility, noosphere, simultaneity, extension, irritability, signal system, event, law of conservation, statistical and dynamic laws, statistical physics, physical picture of the world, phylogenesis

and ontogenesis, finitism, function, number, experiment, element, elementary particles, entropy. Despite the definite spirit of Leninist party-mindedness, this edition makes some essential corrections to the conceptions of the 1954 version. In 1954 *cybernetics* was called a "reactionary pseudo-science" and the "form of modern mechanicism"; it was "against the materialist dialectic, the expression of the inhumanity of the bourgeoisie and their tendency to make the workers mere appendices of the machine; it is used by the warmongers of a new world-war for their dirty work, for massive annihilation of mankind". In 1963 cybernetics is the path-finder for a series of technical and scientific achievements, a synthetic discipline, a shining example of a new type of mutual influencing of the sciences. Idealist philosophy denies the possibility of objective investigation of physical activity and rejects the relevant accomplishments of cybernetics. Diamat stresses the objective bases of cybernetic analogies but does not equate the machine with man. Under *Theory of Relativity* in 1954, we find *inter alia:* "The field structure concomitant with the particle changes with the change of the speed of one particle to another ... it influences many essential properties of the particle, especially its mass, extension and tempo of its processes" ... "Einstein, one of the inventors of the theory of relativity ... gave a falsified, idealist interpretation of many of its sentences ... The principle of relativity is falsely interpreted as the possibility, in all cases and at will, to attribute the movement of one body to another ... Obscurantists and mystics used the idealist interpretation of the theory of relativity to affirm the reality of the fourth dimension, the finitude of the world and other such absurdities. Einstein's errors show how a correct physical theory can be perverted and misused by idealism in the context of the generally corrupted bourgeois culture." In 1963, we find: "The theory of relativity consists in the affirmation of the independance of physical processes from the choice of coordinates" (whereby, of course, the whole 1954 theory of Štejnman and Kuznecov is introduced). Naturally, in 1963 Einstein graduates from Machism to being a follower of Spinoza, a decided atheist, and an opponent of any non-material substance and of logical positivism. The *Resonance-Theory* which had a page and a half as an idealist theory in 1954 has been dropped. The *Principle of Complementarity* was rejected in 1954 as idealist: "The idealists maintain that a particle will have one or another property according to the apparatus used ... To a certain extent the apparatus 'engenders' the state of the object" ... In 1963 the principle of complementarity is still denied and interpreted as the absolutization of the role of the apparatus; the introduction of complementary concepts is based not on objective reality but on the peculiarities of the cognitive process. As before, there is a polemic against the interpretation of wave-functions as recordings of our knowledge of the state of the object, against the denial of causality and the objectivity of the micro-world, against the over-emphasis on the role of the observer and the apparatus. Whereas in 1954 no distinction was made between the classical *determinism* of Laplace and causality as such, today there is an attempt to avoid the diffi-

culties in a dialectical surmounting of mechanical determinism, wherein the "objective and universal causality" is not identified with necessity but is only reduced to dynamic laws. Interesting is the interpretation of the brain as the most complex cybernetic system which receives, stores and elaborates *information* from the outer world. "The property of the brain of reflecting and knowing the outer world is a link in the development of the process which is connected with the transmission and data-processing of information. Whence one can see in contemporary information theory a concretisation of the Leninist thesis that all matter has a property – reflection – which is related to sensation." The *red-shift* which was not in the 1954 edition but which was being discussed at that time, is today recognized as the Doppler-effect, but (following the official Soviet opinion) the expansion of the metagalaxy is not extrapolated to that of the universe.

The general impression of this section of the new dictionary is: the editors remain the same; their views conform to new scientific insights; non-materialist interpretations are, as before, taken seriously and rejected; the polemical style is tempered; party-mindedness remains; gross errors are, as, before, still possible as in the case of Einstein; the philosophic level is low to medium. To judge contemporary Soviet philosophy of science from this book, would be to ignore its more significant discussions.

S. Müller-Markus

As far as epistemology is concerned, the improvement of the 1963 edition of the *Philosophical Dictionary* over that of 1954 is both quantitative and qualitative. Quantitatively, whereas there are only 3 entries in the old edition which are not to be found in the new one (dialectical method, Marxist dialectical method and *tabula rasa*), there are almost 60 new entries: the abstract and the concrete, clarification, classification of sciences, comparison, contemplation, definition, dialectical logic, direct knowledge, division of the extension of the concept, epistemology (in the bourgeois sense, distinguished from *gnoseologija*), epistemological and class roots of idealism, explanation, extension and content of concept, forms of social consciousness, general semantics, general signifiying, generalisation, higher neural activity, I, ideal, idealisation, imagination, inductive definition, introscpection, knowledge *(znanie)*, linguistic philosophy, logical atomism, logical and factual truth, logical positivism, logical square, memory, object of knowledge, objectification, objective idea, opinion, paradoxes, paralogism, predicables, principle, principle of the economy of thought, proof, psyche, psycho-physical problem, self-consciousness *(Selbst-Bewußtsein)*, semiotics, senses, sign, signal system, signified and sense, spirit, sub-conscious, transcendental, transcendental apperception, transcendentalists, types of higher neural activity, unconscious, univocity, validity and truth, vicious circle. This represents an increase of almost 65%. Qualitatively speaking, the new edition depends much more on analytic presentation than on the dogmatic affirmation

typical of previous editions. But, reading over the reworking of key-articles and new items, one has the sneaking impression that the editors 'borrowed' a lot from the *Filosofskaja Enciklopedija*. Finally, it is striking that Rozental' let two of his pet entries – dialectical method and Marxist dialectical method – be dropped.

T. Blakeley

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In addition to the abbreviations customarily used in this journal the following also appear in this bibliography:

LGPI	Leninggradskij gosudarstvennyj pedagogičeskij institut.
M.	Moskva
RSFSR	Rossijskaja Socialističeskaja Federativnaja Sovetskaja Respublika
Ss.	Sbornik statej
t.	tom
UZ.	Učenye zapiski
vyp.	vypusk.

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R. T. Payne

MORE WRITINGS ON NEOPOSITIVISM

The *sbornik* of Moscow University *Filosofija marksizma i neopozitivizm* (below [175]) is a collection of reports to the All-Russian scientific conference "Dialectical Materializm and Contemporary Positivism", sponsored by the Faculty of Philosophy of MGU, which took place at Moscow in February of 1961. From this book two sorts of new bibliographical information are to be added to the bibliography published in this quarterly last year*: (a) the bibliographical data of the *sbornik* itself and of its 28 articles (at least 5 of these articles [184, 187, 189, 196, 203] have already been published in *VF* in 1961 and 1962, under the same or different titles and with more or less identical text [57, 89, 118, 142, 173]), and (b) the bibliographical data of the books and articles that are listed by I. S. Narskij and V. S. Švyrev in the second section of their bibliography on the pages 531–534 of the *sbornik*, in sofar as they are not yet contained in our former bibliography. (This second section contains contemporary Soviet writings, whereas a short first section lists 7 Classics and a third one 235 Western, i.e. English, German, Polish and French titles, including also 11 Russian translations).

Narskij and Švyrev list 53 titles, out of which only 33 are contained in our bibliography in *SST* of last year. This is an example of how bibliographies on Soviet writings are far from complete, in the SU as well as in the West. Narskij and Švyrev do not even list all their own relevant writings. Thus, it seems, that our bibliographical work could be of as much use to Soviet scholars as their work is to us.

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Wolfhart F. Boeselager

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PHILOSOPHICAL REVISIONISM IN POST-WAR CZECHOSLOVAKIA*

Some time in February 1959[1], the (several) Departments of Philosophy[2] at the Charles' University in Prague convened a special "party meeting" at which two leading exponents of the so-called "Institute for Social Sciences of the CC of the CP of Czechoslovakia"[3] were to lecture on "Positivist Revisionism and Marxism". To anyone attending this meeting it must have been obvious at once that something serious was about to happen. Party meetings, of course, were a matter of routine. This time, however, the speakers of the day were emissaries of the ideological brain of the Party; and though the subject of revisionism was a topic much discussed at that time, it was startling that a special meeting should have been convened to discuss this matter.

The lecture began quite inconspicuously. The speaker referred to the familiar distinction between a "dogmatic deadening" and a "revisionist deforming" of Marxism. Everybody was familiar with this point. Since the 20th Congress of the CPSU, all Communist authorities had emphasized the importance of a struggle against "dogmatism". Then came the disturbances in Poland and the Hungarian revolution – and the Communist Parties, though still cautioning against the danger of dogmatism, simultaneously began to warn of "revisionism". Since the Moscow conference of the Communist and Workers' Parties in the late fall of 1958, it was generally agreed that presently revisionism was to be considered the greater and thus the "main" danger.[4]

However, the speakers went on to distinguish between two basic types of revisionism (which was a far less familiar point). Though revisionism, they argued, always is "a conscious instrument of destructive activity" used by bourgeois elements within Marxist-Leninist parties, it can take on two quite different forms: it may depend upon Hegelian trends in bourgeois philosophy, and then it takes on the form of "neo-Hegelian

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revisionism"; or it may draw its tenets from contemporary neopositivism, and in that case it becomes "positivist revisionism".[5]

The basic feature of neo-Hegelian revisionism, they continued, is that it artificially separates methods and doctrine. Its representatives wish to be dialecticians without being prepared to be true materialists; accordingly, they tend to deny dialectics in nature and to overemphasize the influence of Hegel upon the formation of Marxist *Weltanschauung*.

Positivist revisionism, on the contrary, tacitly denies the possibility of a scientific *Weltanschauung*. It reduces philosophy to epistemology and is interested only in language analysis and methodology of science. Its representatives usually are opposed to dialectics and therefore think ahistorically.

As far as political attitude is concerned, both forms of revisionism have in common that they artificially separate means from ends. Neo-Hegelian revisionism does not understand that the present mediates the future; it is interested in the ultimate future alone. Therefore, it is close to petty bourgeois radicalism, indeed to anarchism. Positivist revisionism, on the contrary, overemphasizes the means. It clings to the bourgeois democratic approach and thus puts off the ultimate end of Communist politics to an indefinite future. Accordingly, it has to be taken as an offspring of E. Bernstein's original revisionism which considered the Communist movement itself more important than the end of Communist politics.

Up to this point, no names were mentioned. In a second section of their joint paper, however, the two speakers explicitly accused one of the attending professors of "positivist revisionism". The accused was no less a person than Ladislav Tondl, doctor of philosophy and of political economy, chairman of the two most important departments of philosophy[6], co-editor of the Czech philosophical review as well as collaborator of the party review *Nová Mysl*, in short, one of the leading Marxist-Leninist philosophers of Czechoslovakia.

I shall refrain from considering in detail the particular charges: epistemological reductionism, denial of the Marxist tenet that consciousness is conditioned by social being, commitment to neopositivist ideas, etc. The main charge, as usual, was "separation of theory from practice": "The works of comrade Tondl prove beyond doubt that Marxist philosophy cannot live in a closet without punishing itself; that it cannot develop

if it is separated from the life of the working class; that it cannot be metaphysically separated from the revolutionary party and its political tasks... If comrade Tondl is indifferent to questions of history and contemporary politics, he has to realize that history and politics cannot be indifferent to him."[7]

Everyone present immediately knew what was expected of him. One after another, the philosophers rose, joined in the condemnation of Tondl and eventually urged that the criticism be extended to other philosophers, too. Tondl's faint-hearted attempt to save himself by a self-criticism was barely noticed; later, it was explicitly rejected as being too "formal" (whatever this may mean) and thus ineffective.

In the following months a number of other philosophers had to discover that they, too, were revisionists. Thus, for example, the temporary vice-chairman of the Institute of Philosophy at the Czechoslovak Academy of Sciences, Karel Kosík, was accused of "Hegelianizing pseudo-materialistic tendencies", in short, of neo-Hegelian revisionism.[8] Vojtěch Tlustý, a close collaborator of Tondl, was censured for having tried to rehabilitate Plekhanov's "hieroglyphic" theory[9]; Ivan Sviták, a collaborator of the party organ *Rudé Právo* who specialized in anti-religious critique, was accused of a revisionist interpretation of the correlation between philosophy and politics[10]; a certain Jindřich Fibich was pilloried because of an article on the problem of "bureaucratism"[11]; etc.

However, in the spring of 1960 the anti-revisionist campaign ceased as suddenly as it had originally started. In March 1960, the Czech philosophical review published a self-critical editorial in which it admitted having published several articles which advocated indefensible ideas as well as some compromising reviews of books which ought to have been unambiguously condemned.[12]

And that was it. The as yet unique "revisionist affair" in the history of Marxist-Leninist philosophy in Czechoslovakia was closed. Of course, most of the reprimanded philosophers had lost their positions[13] and were no longer permitted to publish original articles. However, as far as I can see, no one was expelled from the party and some of the revisionists even remained collaborators of the Institute of Philosophy.

At first sight, the events just described seem so insignificant as to be hardly worth mentioning. However, on closer inspection, they yield interesting insights into some features of philosophic revisionism in

general, and into the situation of Marxist-Leninist philosophy in a satellite country such as Czechoslovakia, in particular. Accordingly, I should like to devote the rest of this article to a closer analysis of the events in question.

1. To my knowledge, the condemnation of Tondl, Kosík and others in the spring of 1959 is the first and only instance in the history of Marxist-Leninist philosophy in Czechoslovakia of a public impeachment for philosophic revisionism[14] issued by the Communist Party.

However, there are several authors who, according to all known criteria with the exception of that of a public accusation, would have deserved to be called "revisionists" at one time or another. I shall mention only two of them here.

The first is Jaroslav Kabeš who was an official of the Czechoslovak Agrarian Bank from 1919 to 1945 and became Minister of Finance, and later general manager of the Czechoslovak National Bank under the Communist regime.[15] In the late twenties, Kabeš was one of the most brilliant Marxist-Leninist "philosophers" in Czechoslovakia; thus, for example, in 1926, he published one of the first Communist studies on the young Marx.[16] Around 1935, however, Kabeš began to sympathize with the voluntarist and nihilist philosophy of L. Klíma (1878–1928) and eventually wrote a book on the "philosophy of will" of the Czech poet Otokar Březina.[17] There hardly can be a doubt that Kabeš is a late-comer of the trend which Professor Kline describes as "Nietzschean revisionism"; still, he was never accused of revisionism and, in 1949, even became member of the CC of the CP of Czechoslovakia.[18]

The other instance is a young collaborator of the Institute of Philosophy, Jaromír Bartoš, who, in the summer of 1957, explicitly rejected Engels' self-contradictory definition of motion and even maintained that Lenin's "famous" thesis on the unity of continuity and discontinuity in motion merely is a phrase which one author copies from another.[19] In the beginning of 1958, the same Bartoš published another article in which he rejected Engels' dialetical law of the negation of negation as obsolete.[20] Both articles initiated a lively and sometimes vehement discussion[21]; but neither then nor later was Bartoš accused of trying to "revise" Marxist-Leninist ideas.[22]

This suggests a distinction between authors officially stigmatized as revisionists and authors who, though they "revise" Marxist-Leninist

tenets in one way or another, are never put under the ban. Only the former are true revisionists, the latter may be innovators, hotspurs and even dissidents, but they are not revisionists properly speaking.

However, it would seem preposterous to say that the accusation of revisionism is constitutive of the very definition of revisionism; after all, people are accused of revisionism, because they are, or are believed to be, revisionists, and not *vice versa.*

Still, it remains true that authors trying to revise Marxism-Leninism sometimes are accused of revisionism and sometimes are not. Accordingly, one should look for criteria which permit one to decide which kind of revision, in the eyes of the Party, is revisionist and which not.

2. It seems to me that there are three types of criteria at work here. First, there are certain *doctrines* the revision of which amounts to revisionism. Secondly, a revision is revisionist or not according to the *historical period* in which it is advanced. Finally, there are certain *persons* who are more likely to be accused of revisionism than other.

To begin with the last point. As revisionism is a deviation from certain basic ideas of the classics *as interpreted by the Party at a given moment,* neither the Party itself nor its actual representatives can possibly be termed revisionists. It is, of course possible that one Party accuses the leaders of another Party of revisionism; it is even conceivable that, during a struggle for power within the Party, one leader accuses another of revisionism (though, to my knowledge, it has never happened). But it is inconceivable that the Party itself (and, in its shadow, the leader of the day) be revisionists from the point of view of this very Party. For it is a basic axiom of Marxist-Leninist ideology that the party always knows best. In short, as mentioned above, though it would be preposterous to say that the actual accusation of revisionism is constitutive of the very definition of revisionism, it would seem possible to say that "accuseability" is essential to "what it is to be a revisionist".

3. As regards the criteria of doctrine and of time, one may formulate the following general principle: a revision is revisionist whenever it is opposed to, or threatening to conflict with, the Party's political aims and goals of the day.

This entails that there may be certain doctrines the revision of which would virtually never amount to revisionism – doctrines which are too abstract, too far removed from "practice" to be politically relevant.

Moreover, there seem to be periods in which the revision of even quite basic ideas is not momentous enough to be considered as revisionism. To return to the instances mentioned earlier, Bartoš was never accused of revisionism because his criticism concerned comparatively abstract doctrines; Kabeš, though he seems to have rethought very basic tenets, was never condemned because in all questions which were politically relevant at the time he remained a faithful son of the Party.

4. As regards the criterion of doctrine, it seems possible to draw a line which, roughly speaking, corresponds to that separating dialectical from historical materialism. To my knowledge, no one was ever accused of revisionism only because he revised tenets of dialectical materialism – with the noticeable exception of epistemology.[23] A case in point are the Polish philosopher Adam Schaff and those influenced by him like E. Kol'man in the Soviet Union and J. Bartoš in Czechoslovakia; their rebellion against the Marxist-Leninist doctrine on "real contradictions" was and still is quite sensational[24], especially because ultimately it amounts to questioning Hegelian dialectics. But none of them was ever accused of revisionism.

Perhaps one may say that the various ideas taught under the heading "Dialectical Materialism" are either ideologically, and therefore also politically, not relevant enough to be amenable to revisionism, or else so basic that a revision would amount to outright apostasy, not to revisionism (think of principles such as: there are no immaterial beings, or: matter is prior to consciousness).

5. Ultimately, however, revisionism is always a "separation of theory from practice", i.e. the refusal or failure to adjust one's philosophizing to the politics of the Party. Instead of elaborating this point, I shall simply quote a passage from an editorial published in the Czechoslovak philosophical review in 1960: "The union of philosophy and politics does not, as some comrades erroneously believe, amount to degrading philosophy to a 'servant of politics'. In Marxism, this union ... is based upon the fact that the ultimate foundation of both philosophy and politics is a well understood objective reality. Therefore, and only therefore, Marxist philosophy can serve the Party as a theoretical foundation, exactly as the politics of the Party enriches philosophy with living experiences and with a creative relation toward reality ... The union of philosophy with politics is above all a union with the revolutionary

action of the masses which implements the politics of the Party. . . . All isolation from life, from the practical struggle of building up Communist society makes philosophy shallow, sterile and impotent. . . . *Revisionism is precisely the attempt to separate philosophy from the politics of the Communist Party.* Such a separation means to push philosophy back into stages which belong to the past; ultimately, it results in substituting some form of contemporary bourgeois philosophy for the scientific philosophy of revolution."[25]

In short, revisionism always entails philosophizing for its own sake instead of for the Party's sake. The boundary which separates revisionism from a revocable error (and be it ever so serious) is indicated by the presence or absence, respectively, of a *sentire cum ecclesia*, of a commitment to the Party line of the day.

6. We may even go further and say that the failure to adjust one's philosophizing to the concrete needs and aims of the Party is always a necessary and sometimes even a sufficient condition of revisionism. That in some cases the simple absence of a commitment to the Party line may by itself amount to revisionism is, to my mind, indicated precisely by the Czechoslovak "revisionist affair" of 1959.

When, early in 1960, I wrote the last pages of my book on Marxism-Leninism in Czechoslovakia since 1945, I still believed that the CC of the CP of Czechoslovakia had reason to worry about genuinely revisionist trends among its philosophers. Yet, I was never able to find texts which displayed truly revisionist tendencies. The charges against Tondl, for example, were based upon three works which, though admittedly somewhat unusual, were far from being heterodox. There was, first, a study entitled *The Problem of Causal Analysis of Social Action*[26]; secondly, a lengthy article on neopositivism in a small encyclopedia on contemporary Western philosophy[27]; and finally, an introduction to a collection of papers on epistemological problems, published in 1957.[28] None of these works contained anything which might be described as a revision of central Marxist-Leninist tenets, though they all were highly formal, analytic and, last but not least, original.

However, all the works mentioned clearly displayed the desire to do honest scientific and scholarly work. At one point, Tondl goes even so far as to translate this tendency into a criticism of the inexpert, indeed aphilosophical, guidance of philosophy by the Party. Alluding to the

Stalinist period he declares that, in the past years, "we were always required to bring theory closer to practice.... At this point, it has to be said that though the required connection with practice which, if it is correctly understood, is indeed a condition-of-life for the existence and for the progress of science; it often tended to become a glorification of, an apology for, and a theoretical 'justification' of any given practice. One almost thinks of Hegel's 'what actually exists is rational'. Such a degeneration of the criterion of practice... was hardly a pleasant prospect for philosophers."[29]

In short, Tondl was the spokesman of an important group of Czechoslovak philosophers who, though they were perfectly orthodox, called for more "elbow room". They were in no way opposed to the politics of the Party; they simply believed that they would best serve the Party by being good and honest philosophers – and argued that their work cannot but suffer if it is daily harassed and burdened with purely political problems. The representatives of this group were prepared to commit themselves to the revolutionary movement of the working class, as befits a good Marxist-Leninist; but they considered it as improper, annoying and degrading to comply with each and every political whim of the day.

And this precisely the Party could not tolerate. For the only conceivable justification of the existence of philosophers in the Communist world is that the Communist movement, i.e. ultimately the Party, needs them. Sometimes, the Party may permit some comparatively objective philosophizing which is noncommital as regards political problems, simply because it wants to keep the philosophers in high spirits; sometimes it may even back up objective scientific work because it needs it. But it cannot consequently tolerate philosophers who, though they do not explicitly contradict the Party line, are interested in philosophy only for philosophy's sake.

7. In short, Tondl, Kosík and their colleagues were accused of revisionism, pilloried and condemned because they represented a group which made of philosophy a highly specialized, comparatively independent and therefore politically perfectly useless science.

That this interpretation is not spun out of thin air is indicated by a resolution of the CC of the CP of Czechoslovakia which is entitled "Report on the present situation of philosophy" and which, though it seems to have been passed on March 24, 1959, was not published until

late in 1960 (and, therefore, was unknown to me while I wrote my book).[30] To anyone studying this document it becomes obvious at once that its main aim was to counteract the tendency of most Czechoslovak philosophers to break away from any kind of politically engaged philosophizing and to withdraw into highly specialized fields of study.[31] As opposed to this, the resolution emphasizes that Marxist-Leninist philosophy is an instrument of the revolutionary workers' movement for the transformation of nature, society and thought, rather than a private affair of "closet scholars separated from life".[32]

This document also contains an analysis of the specifically Czechoslovak expressions of revisionism which indicates that the latter consisted mainly in a lack of commitment to the Party, not in a "revision" of basic Marxist-Leninist dogmas.

According to this analysis, revisionism in Czechoslovakia originates from three sources: first, from the overestimation of the influence of Hegel on Marxism-Leninism which is said to lead to an artificial separation of the "young" Marx from the "old" one[33]; secondly, from a "cult of isolated facts compiled haphazardly"; finally, from the tendency to dissociate science and ideology as well as philosophy and politics, on the pretext that such a dissociation would increase the *naučnost'* both of science and of philosophy. Of these three features, only the first is usually associated with revisionism; the second feature is known in the Communist world as "eclecticism"[34] – and is a far less serious charge than "revisionism"; finally, the third feature would be generally considered revisionist only if it is explicitly spelled out, not if it expresses itself as a mere tendency.

8. At this point, someone might want to raise the following objection: would it not be more proper to say that Tondl, Kosík and their colleagues were accused of revisionism simply because the charge of revisionism was handy and fashionable, though actually they were not revisionists?

I am prepared to agree with this objection to the extent of granting that Tondl, Kosík, Tlustý, Sviták, etc., were not revisionists in the usual sense of the term.

On the other hand, however, it should be remembered that 'revisionism' is an expression coined by the Communists themselves and that, therefore, the only reliable way to discover what revisionism really is, is to observe how Communists themselves use this expression. To my mind,

it makes no sense to say that someone not accused of revisionism is actually a revisionist; nor does it make sense to say that someone accused of being a revisionist actually is not one. For, as long as we use an expression coined by the Communist Party, and as long as we do not emphasize that we give to it a meaning different from the Communist one, it is up to the Communists, not to us, to decide how this expression should be used.

9. Let me conclude with the following observation: the dilemma of Communist philosophy consists in there being two incompatible criteria for the quality of Communist philosophizing – and that the Party does not seem to be prepared simply to sacrifice one of these criteria for the sake of the other. Communist philosophy is 'better' or 'less good', first, according to whether it totally commits itself to the Party line or not; and secondly, according to whether it is done in a philosophical manner or not.

Whenever Communists have seized power, they have taken enormous pains with the education of qualified and highly specialized philosophers who are more than only philosophizing *apparatčiks*. However, as soon as these philosophers are able to stand on their own feet, they begin to be highly apolitical specialists and ultimately seekers of truth. Thus the Party cannot avoid, from time to time, destroying that which it has built up: it has to prevent its philosophers from following consistently the road upon which it, the Party itself, has put them.

For the quality of philosophy taken as such is inversely proportioned to its "politization".

REFERENCES

1. I was never able to find out the exact date. The most which I can say is that the meeting in question took place after February 5 and before February 26, 1959. This I infer from the following fact: on February 5, 1959, the Communist literary review, *Tvorba*, published a review of Tondl's book *Problém pravdy* (The Problem of Truth) by a certain M. Huláková. Though the review is very severe, nothing indicates that Huláková knew of Tondl's condemnation. On the other hand, the first report on the said meeting was published by *Tvorba* on February 26, 1959. There also is another difficulty concerning the date, namely, that the resolution of the CC of the CP of Czechoslovakia which dealt with philosophical revisionism is of March 24, 1959. Now it would seem odd that the resolution of the party *followed* the meeting in question instead of *preceding* it; and, in any case, it is odd that this resolution was published almost a month after Tondl's condemnation. If the dates are correct, the only good explanation would seem to be that the resolution of the

CC was *passed before* the meeting and that later the date was changed. That Communists like to handle dates somewhat freely has recently been again suggested by G. L. Kline in *SST* III (1962) 327–330.

The lecture on 'Positivist Revisionism and Marxism' which is described in the text was never published. However, the two speakers published two joint papers which give an idea of what they said. These two papers which correspond to each other almost word for word are: V. Ruml, J. Srovnal, 'Positivismus – nástroj komolení materialistické dialektiky' (Positivism, an Instrument for Blunting Materialist Dialectics), *Nová Mysl* 1959, 5, 420–435; and V. Ruml, J. Srovnal, 'Nové problémy marxistické filosofie a staré prohřešky proti materialistické dialektice' (New Problems of Marxist Philosophy and Old Sins Against Materialist Dialectics), *Filosofický Časopis* (Abbreviated: *FC*) 1959, 3, 299–321.

2. In 1959, there were at least six Departments of Philosophy at the Philosophical Faculty of the Charles' University: Dialectical and Historical Materialism I and II, Foundations of Marxism-Leninism, History of Philosophy (with a special section: Aesthetics), Logic and Psychology.
3. This institute was established by a special law in December 1957. As I have tried to show in my book *Marxismus-Leninismus in der ČSR. Die Tschechoslowakische Philosophie seit 1945*, Dordrecht (Holland), 1961, pp. 92ff., this institute is the highest authority in questions of ideology in Czechoslovakia. Incidentally, almost all articles written between February 1959 and January 1960 which denounce revisionists were written by "collaborators" of this institute.
4. The first resolution of the CC of the CP of Czechoslovakia which touches upon the problem of revisionism, to my knowledge, was published on June 14, 1957. However, I know of no resolution previous to that of March 24, 1959, which speaks of a specifically Czechoslovak revisionism. Cf. *Marxismus-Leninismus in der ČSR*, pp. 68ff.
5. It seems to me that the Czechs were the first to use the expression 'positivist revisionism'. The only Soviet text which I know is a short passage in an article by I. S. Narskij, published by the *Naučnye doklady vysšej školy. Filosofskie nauki* 1959, 2, 23. Here, Narskij distinguishes between "anthropological", Hegelian and positivist revisionism and mentions the Yugoslav philosopher M. Marković as a representative of the third trend. This issue of the *Filosofskie nauki* was *podpisano k pečati* on August 1, 1959, i.e. almost five months after Ruml's and Srovnal's articles; and as Narskij seems very much interested in positivism it is not unlikely that he knew of these articles. I owe the reference to Narskij's article to Professor G. L. Kline.
6. Namely, the Department for Dialectical and Historical Materialism I at the Charles' University and an analogous Department at the Academy of Sciences. The articles of Ruml and Srovnal speak of Tondl as of the *former* chairman of these departments. Strangely enough, Tondl still was mentioned among the co-editors of the Czech philosophical review in September, 1959. His name is missing only since the issue of November 1959. I suspect that the Czech philosophical review was somewhat hesitant in complying with the orders of the Party. This would also explain why the inevitable self-critical editorial of the review was published as late as in 1960. At that time the editorial staff was replaced almost completely, mostly by collaborators of the Institute for Social Sciences.
7. *FC* 1959, 3, 321.
8. A complete list of the "defendants" is found in *Nová Mysl* 1959, 6, 571–579. A

detailed analysis of Kosík's offences is found in J. Zelený, 'O pseudomaterialistické tendenci v naší filosofii' (On Pseudomaterialistic Tendencies in our Philosophy), *Nová Mysl* 1959, 6, 580–610, reprinted in *FC* 1959, 5, 643–677.

9. The article in question was published in the collection edited by L. Tondl, *Otázky theorie poznání*, Prague, 1957, pp. 42–46.
10. Sviták and Kosík were the main contributors to a discussion of philosophy and ideology which was published by the *Literární Noviny* in the winter 1957/1958
11. Cf. *FC* 1959, 1, 27–59.
12. *FC* 1960, 2, 153–161.
13. In the summer 1960 Tondl was permitted to publish a lengthy review of the *Logičeskie issledovanija* (Moscow, 1959). Cf. *FC* 1960, 5, 810–821.
14. I call 'philosophical revisionism' simply revisionism found among professional philosophers.
15. For a short biography, cf. H. Slapnicka, 'Wer ist Wer in der tschechischen und slowakischen Politik', *Osteuropa* 1959, 9, 566.
16. J. Kabeš, 'Filosofický vývoj mladého Marxe', *Komunistická Revue* 2 (1925) 18, 552–560; 19, 581–586; 20, 620–623; 22, 678–682; 24, 741–745. A complete list of Kabeš' publications is found in S. Strohs, *Marxisticko-leninská filosofie v Československu mezi dvěma světovými válkami* (Marxist-Leninist Philosophy in Czechoslovakia Between the Two World Wars), Prague, 1962, p. 182f. For the official evaluation of Kabeš, see *Filosofie v dějinách českého národa* (Philosophy in the History of the Czech Nation), Prague, 1958, pp. 258ff.
17. J. Kabeš, *Filosof vůle a jeho myslitelské dílo* (The Philosopher of Will and His Work), Prague, 1941; see also *Ladislava Klímy filosofie češství* (L. Klima's Philosophy of Czechism), Prague, 1945.
18. From May 5, 1949 to June 15, 1954.
19. J. Bartoš, 'Paradoxní these o rozpornosti pohybu a problém zásad správného myšlení', (The Paradoxical Thesis on the Contradictoriness of Motion and the Problem of Principles of Correct Thinking), *FC* 1957, 3, 340–357.
20. J. Bartoš, 'O tzv. zákonu negace negace' (On the so-called Law of Negation of Negation), *FC* 1958, 2, 268–281.
21. Cf. *Marxismus-Leninismus in der ČSR*, pp. 123–132.
22. The most severe criticism appeared in the issue which published the article accusing Tondl, cf. *FC* 1959, 3, 371–381.
23. As far as I can see, V. Tlustý was accused of revisionism solely because of his article on Plekhanov's hieroglyphic theory.
24. See my *Das Widerspruchsprinzip in der neueren sowjetischen Philosophie*, Dordrecht (Holland), 1959. An English translation of the introduction is found in *SST* I (1961) 44–49.
25. *FC* 1960, 2, 155.
26. L. Tondl, 'K problému kausální analysy společenského jednání', *Rozpravy ČSAV* 68, 6, Prague, 1958.
27. *Současná západní filosofie*, Praha, 1958, p. 32ff.
28. *Otázky theorie poznání*, Praha, 1957.
29. *Ibid.*, p. 5.
30. 'Zpráva o současné situaci ve filosofii', *Usnesení a dokumenty ÚV KSČ od XI. sjezdu do celostátní konference* 1960, Praha, 1960, pp. 305–319.
31. I have described in 'Philosophy in Czechslovakia since 1960', *SST* III (1963) 11–32,

how this resolution originated a trend toward popularization and "politization" of Czechoslovak Marxism-Leninism.

32. During the anti-revisionist campaign, one could often read the invective 'closet philosophy'.
33. A recent analysis of this subject is I. Dubský, 'Hegel's Arbeitsbegriff und die idealistische Dialektik', *Rozpravy ČSAV* 1961, 71. For a Western analysis of the Communist conception of the "young" Marx, see the article of E. Thier in *Marxismusstudien* I, Tübingen, 1954, p. 1–38.
34. Tondl was explicitly accused of "eclecticism", too.
35. See my article 'Partei-Philosophie', *Wort und Wahrheit* 1963, 4, p. 280–298.

J. FIZER

THE THEORY OF OBJECTIVE BEAUTY IN SOVIET AESTHETICS

> "What is involved here is a very complex question and therefore should be solved in a friendly dispute, in sharp polemics, which should facilitate the search for truth. Today there is hardly a daredevil who would say: 'I know the answer to the question of what is beautiful, an answer which is truly Marxian, infallible, exact, undisputable, and on the level of science'". (Jurij Borev, 'Četyre axillesovy pjaty', *Oktjabr'*, 1961, V. II, p. 211)

I

Beauty, as an aesthetic category until roughly the Thaw period in Soviet aesthetics, was seldom treated epistemologically. While reading the pre-Stalinist works on beauty, one has a feeling that the nature and the validity of knowing beauty has been proscribed from Soviet aesthetics. One looks in vain for the psychological definition of beauty and for a theory construed from the standpoint of awareness of those qualities or relations of objects which impinge upon man's sensory processes, or from the standpoint of ascription by an individual of his own experiences to an outside external reality. Beauty was simply recognized as existent, and no psychological probing or verification of man's knowledge of beauty was attempted. Its objective existence was assumed to be confirmed by the classics of Marxist ideology and, therefore, all that Soviet aestheticians were to do was to illustrate the correctness of such confirmation. It was also assumed that the objective existence of beauty in reality was tantamount to the objective existence of physical reality, and hence any inclination to doubt one meant doubting the other.

Yet, even with this unyielding dogmatism, Soviet aestheticians could not sustain without some epistemology. But here, too, they were anticipated by the classics. Thus they parroted the childishly naive 'proofs' of Černyševskij or Lenin's angry journalism. The vast knowledge amassed by Western psychology, natural sciences and scholarship in general, which has been so extensively utilized by Western aestheticians, was

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passed by in silence in the Soviet Union. The complexity of the subject-object relation, primarily an epistemological problem, is one to which Western thinkers devote much attention and in fact makes the focal point of their concern. In Soviet aesthetics this problem was reduced to a secondary question.

Sensory apprehension for Černyševskij was a reliable way of proving that beauty is an integral part of material reality, and that only people with "artificial, corrupt to the point of deceit, fantastic demands, people who cannot be completely satisfied"[1], cannot conceive of beauty in nature. To prove that beauty is objective Černyševskij employs this illustration. "All that one needs to do is to take one of those people who complain that there are few beauties and let him walk on Nevskij during the time of outdoor fête. Soon he will start pulling your arm continuously and say: 'Look, what a beauty!.... Oh, and that one.... Oh, and there is another one, look, that one is truly a beauty.'"[2]

Beauty, for Černyševskij was immanent in reality, or, as he called it, in actuality. To be aware of it one has to be a normal and thinking man; one has to possess "an unspoilt aesthetic emotion".[3] But what these prerequisites are, i.e. what is a normal mind, what is normal perception in general and aesthetic perception in particular, Černyševskij did not say. For him there was beauty in reality and a normal person sees it, a normal creator reproduces it. "An object which is beautiful in reality remains such in our eyes retaining all its material aspects..."[4]

Thus Černyševskij equated "normal" sense perception with reality and excluded the possibility of *tertium quid.*

Mutatis mutandis, Lenin shares in this concept. Briefly, his entire epistemology is reducible to two such postulates: (1) Things exist independently of our consciousness, independently of our sensations, outside of us. (2) There is not, and there cannot be, any difference in principle between the phenomenon and the thing itself. The difference amounts to what is known and what is yet unknown.[5] But while for Černyševskij it was enough to go to Nevskij Prospekt and eye the Petersburg beauties to attest the existence of beauty, Lenin construed a theory of knowledge which he thought was genuinely Marxist. To attest the objective existence of matter, transmitted to us by our sensual apparatus, he elevated activity to the level of an epistemological category. According to this theory, it is through engagement and practical activity that man recog-

nizes matter as real, as objective. "The point of view of life, of activity, must be the basic point of view in the theory of knowledge."[6] Man's sensory apparatus, properly conditioned through work, "photographs, reflects"[7], this objective reality. This photography, this reflection, however, only approximates the objective. Yet, the reflected exists independently of the reflecting.[8]

The level and the degree of conditioning of the sense apparatus predetermines the degree of approximation. Each perceptive act is relative. On the level of the perceiving individual there is a subjective relativism, on the level of society there is a historical relativism. Relativism, of both kinds in Lenin's thinking, is proof for and not against the existence of the objective world. Human cognition "though incapable of absolutely and finally mastering its object, approaches it in a constant and progressive evolution, and its unlimited improvement tends to make it more and more *like* reality; it imitates more and more faithfully all the time the properties and relations of the world, which are themselves independent of this effort, and exist in themselves outside human thought."[9]

To extend this kind of epistemology to the domain of aesthetics, and particularly to the problem of beauty, one cannot help but make the following conclusion: since human senses register natural beauty, they attest its objective being. Although the photography, the reflection of the beauty individually and socially, is relative, it is nevertheless proof of the "existing model".[10]

Yet Lenin, in spite of his manifold interests, did not make any direct statement on the question of beauty. It is through deduction and interpretation that Soviet aestheticians consider their views on beauty as Leninist. This is how such a deduction was reached: if man's perceptive apparatus reflects reality in its totality, then all the elements of the phenomenon must necessarily have their equivalents in actuality. If some of these elements appear to be beautiful, then they necessarily reflect beauty of the noumenal world.[11] Yet, by the same token, one can deduce that anything resulting from uninhibited creativity has a model in objectively existing reality. Here, however, the concept of practical activity checks and verifies whether a reflected, a photographed object does have a pre-existing model or whether it is falsehood or nonsense.[12] In turn, is practical activity the object of political manipulation? But what is this all-sanctifying "practical activity"? In his *Theses on Feuerbach*, Marx

attempts to define this activity as "human sensory activity". This definition, being as vague as it is, leaves the keepers and the practitioners of the official ideology free to engage in endless juggling with it. During the "cult of personality" anything that the Communist Party did was a just activity and served as a verification of the Truth. Nowadays, that activity is considered arbitrary *(proizvol'nyj)* and beclouds the Truth. In brief, there is no stable Marxist interpretation of empiricism as a source of knowledge.

II

Since Stalin's death the problem of beauty has received a great deal of attention. A number of larger studies have been published, dozens of articles and symposia have appeared in various publications, and different points of view have been expressed. On the whole, post-Stalinist opinions on beauty can be classified into three distinct groups: (1) those which uphold the theory of reflection *(teorija otraženija);* (2) those which propagate the theory of acquisition *(teorija usvoenija);* and (3) those which support the theory of expression *(teorija vyraženija)*. Yet, as is to be expected, all aestheticians who have engaged in the polemics on beauty and expressed different views claim to adhere to the Marxist-Leninist orthodoxy.[13] The three groups are also referred to as: (1) naturalist *(prirodniki)*, (2) socials *(obščestvenniki)*, (3) expressionists *(vyraziteli)*.

To the group of naturalists adhere such aestheticians as: A. Egorov[14], Ja. E. El'sberg[15], U. Romanenko[16], N. Dmitrieva[17], S. Permjakov[18], K. Zelinski[19], I. Astaxov[20], P. L. Ivanov[21] and a few others.

These aestheticians assert that beauty is immanent in nature, that it is an element in the dialectical process of becoming and that it has an existence of its own independent of human consciousness. This, they assume, is the only possible view consistent with the materialistic philosophy. Beauty "exists objectively both in the world of nature as well as in social order. Consequently, the objectively aesthetical exists independently of human consciousness."[22] The objectively beautiful (object) affects the subjectively perceiving human being (subject), properly conditioned by practical activity, in such a way that the latter cannot but attest to the existence of the former. In the act of perception there is the *ascendancy*[23] of the perceived upon the perceiving and not *vice versa.*

Although the aesthetical valuation of objects and natural phenomena is always done by people, these objects supply the criteria for such a valuation.[24]

When pressed to define objective beauty, this group of aestheticians is at a loss. All they say is that such beauty exists and that "aesthetics is to discover it, to explain it, and thereby to help the ideologically-creative growth of artists and masses which perceive art."[25] Is there a chemical, physiological, biological peculiarity to the structure of those objects which are beautiful? What is, in brief, essential to objective beauty? The aestheticians in question are mute on such a question.

In the history of aesthetics the position of these aestheticians is similar to those Western aestheticians who have also supported the imitation theory for reasons, of course, different. The Soviet criticism of their position, coming from those who profess the "theory of acquisition", also does not differ essentially from the criticism long entertained in Western aesthetics. Mr. H. Osborne sums up very well such criticism when he writes: "In order to know that anything is an imitation of something else you must be able to know independently both that thing itself and that which it imitates. If you cannot know that which is imitated except by knowing the imitation, you cannot know that the imitation is an imitation or how exact an imitation it is."[26] The aestheticians of the first group cannot define the thing imitated, reflected, and photographed.

III

The group of "socials" includes these aestheticians: V. Tasalov[27], Ju. B. Borev[28], V. Vanslov[29], L. Stolovič[30], A. Burov.[31] In the same way as aestheticians of the first group, these listed here claim to uphold the fundamentalism of Marx-Lenin. Their views on beauty, however, are considerably different. A. Astaxov ascribes the difference to the fact that they "use the early philosophical-economical manuscripts of Marx"[32], and deliberately neglect the works of the mature Marx. Although Astaxov is correct in his statement, it seems to me that the reason for this difference lies somewhere else. This group of aestheticians is more acutely aware of the complexity of the subject-object relationship than the first one. Hence, its epistemology is more hypothetical and less dogmatic than the one considered above. Publicly they can ill afford the rejection

of the Leninist theory of reflection, yet it is evident that this theory gives them little comfort. As a result, they attempt to reinterpret this theory, enlarge it and thereby encompass within it their views on beauty.

Beauty, according to these aestheticians, does not exist outside the emotional significance of the perceived object. In reality, in nature "in principle it is impossible to find the natural essence of beauty".[33] In fact "natural phenomena need not be beautiful".[34] If, however, objective reality is not a depository of beauty, where does it reside? According to Tasalov, "it exists only in the framework of the aesthetic perception of reality"[35], or, as he states on another occasion, it is "a relationship between man and object".[36] Beauty, therefore, can not be determined and defined "outside any dependence upon man".[37] It results from man's interference into nature and, therefore, it is a non-material phenomenon; it is a specific state of human consciousness. The question of whether it has existed before such interference is, in the opinion of these aestheticians, irrelevant. Any ascription of beauty to the structure of matter is metaphysical. Vanslov calls his opponents who defend the objective beauty "meditative materialist metaphysicians".[38]

Beauty, however, is not subjective. It is socially objective. The beautiful, the aesthetic, occurs only between the socially conscious man and a socially meaningful object. A rapport in any other type of juxtaposition cannot yield beauty. Hence both factors (the perceiving and the perceived), in order to produce beauty, must be socially predetermined. Therefore, not everybody can create and experience beauty and not everything can become an aesthetically productive object. "The object of the aesthetic perception and experience cannot be an isolated phenomenon but is instead a concrete-emotional phenomenon existing in the *objective* relationship with society."[39] Tasalov equates beauty with social importance. "... Beauty is an expression of such correspondence of form of the object and its internal sense which man achieves consciously and purposefully in the process of his creation and which serves as a confirmation of its social importance."[40]

What these aestheticians are actually saying is that it is only through socially and politically conditioned perception that man is capable of seeing reality aesthetically. Into this point of view it is rather easy, for these aestheticians, to inject the notions of class consciousness, party-

mindedness, Communist ideology, and the like. And it is these factors which, they claim, make aesthetic qualities of the perceived object objective. Thus, beauty is only socially objective. Its existence or non-existence outside human consciousness has nothing to do with its objectivity. Stolovič wrote that recognition of the objective aesthetic qualities does not mean the recognition of their existence prior to the emergence of human society. To prove the objectivity of the aesthetic qualities simply means to prove that they emerge and exist together with man and human society.[41] Vanslov expresses similar ideas when he says that beauty exists "in the creation of human hands, in the products and the labors of humanity, in the recreation and the mastery of nature, in art – *it exists objectively as their social quality.*"[42] According to Vanslov, the objectivity of beauty rests also in its historical universality, in its non-class character. "Each epoch in the development of society raises its own ideals of beauty incorporated in art. But along with this, being class ideals, ... these ideals contain some universal human moments which are the more significant, the more progressive the class."[43]

It is only logical that for this group of aestheticians there are not the objective laws of beauty so vehemently propagated by the first group. Such laws, they state, deprive man of his creativity and turn him into an instrument or a criminal. Every time he dares to deviate from such laws he acts against the natural order of things. As a result all creativity either becomes a minute, faithful reproduction or a gross violation of nature. In face of such a dilemma Ju. Borev pathetically exclaims: "What kind of laws of beauty?"[44] The aestheticians in question, therefore, state that any laws related to beauty are socially created laws which have nothing to do with matter or its structure. Such laws are "closely connected with political and moral criteria".[45]

Finally, in what sense does the position of these aestheticians complement or contradict Marxist epistemology? To answer this question one would have to be sure what this epistemology is and this hardly anybody knows for certain. We are of the opinion that the position described above corresponds with some aspects of this "epistemology" and contradicts others. It seems that it complements the Marxian notion of "humanization of nature"[46], according to which man, in accordance with his necessities, recreates the substance of nature on the basis of objective laws. In addition to making nature useful he makes it beautiful.

Without objective reality, however, beauty would also be impossible. Marx coined an expression, "objectivization of man"[47], by which he meant that the objective world which surrounds man, his immediate environment and everything connected with it, more or less bears an imprint of his activity. In the process of "humanization" and "objectivization" man develops his perception and emotions; in brief, his cognitive and creative tools. Developing these, he begins to recreate nature. While creating and recreating he "contemplates himself in the world created by himself"[48], or, in terms of the above aestheticians, man contemplates beauty he himself created. A. Burov uses these expressions of Marx almost *verbatim* when he defines beauty: "the object becomes beautiful only to the point at which man recognizes himself in it, his creative possibilities, and the richness of his human essence."[49] Only humanized objects are beautiful and only objectivized man is capable of creating beauty. Lenin's emphatic stress upon practical activity, it seems, agrees with this position. Vanslov even speaks of beauty in terms of these two notions of Marx: "Beauty does not exist as an essential quality of nature but exists as a quality of 'humanized' nature, i.e. a nature involved in the system of social relations."[50]

On the other hand, no matter how hard one tries, it is impossible to reconcile this position with the theory of reflection if by reflection we mean what Lenin meant, "the image of the external world".[51] Seen from this point of view, the criticism directed against these aestheticians is to the point. As Permjakov states, the theory of "aesthetic appropriation leads one astray from the Leninist position of reflection of reality in the consciousness of man, replaces it with the notion of the appropriation of reality"[52], "puts to the forefront the subject and suggests the incursion of the subject into reality".[53]

IV

The third group of aestheticians, defending the theory of expression, is probably the most interesting and the most liberal in its interpretation of Marxist-Leninist ideology. It is hard to estimate how many people share in their theory, but, all considered, it appears to be popular with younger intellectuals and literati. B. Runin's article in *Novyj mir*[54] is the strongest defense of this theory. I. Vinogradov's study[55] tends also

to uphold this theory. N. Koršavin[56], A. Men'šutin and A. Sinjavskij[57] adhere to it also.

These people are less concerned in the definition of beauty than the two groups described above. Their theory of expression, self-expression, and self-revelation suggests a totally different kind of definition of beauty. While the first group, both in the creative act and the aesthetic perception, gives preponderance to the object, this group gives such preponderance to the subject. The creative subject is all that matters. The subject does not reflect, photograph, objectify, acquire. It unfolds itself. "The objective picture of reality does not enter the contents of the creative act. Such contents are based upon the author's arbitrary idea."[58] Works of art do not need any outside justification. They need to be true only to themselves. "There is an old maxim", writes Runin, "which states that art does not need the recognition of its products as reality."[59] Any attempt to formalize or to summarize the relationship between the object and subject ends in failure. Such a relationship is beyond man's comprehension and should not be posited in a rigid, dogmatic manner. In fact, it should not be posited at all. It prevents man from a more encompassing understanding of the nature of art. This is what Runin says: "If we shall start with the harsh, categorical opposition of lyric and epic, of subjective and objective, of personal and social, then we shall never penetrate the nature of the artistic creation."[60] "Where the subjective starts and where it ends nobody knows for sure. How does the fusion of these two occur? There is no answer to this question."[61]

Such being the case, creative man should be "faithful to himself".[62] His creativity "is only the result of the inner tension which dominates him and occurs as a motif of all of his lyrical impetuosity".[63] To quote further, creativity is "the pathos of self-assertion".[64] Lyrical poetry, in particular, is a medium of self-revelation. "For the lyrical poet there should not be a division of life into his own and the one beyond. In his poems the poet can express only his own personal experience."[65] He himself is "the subject of cognition".[66]

The concept of beauty concomitant with this theory of self-expression is different both from the apriori concept of the first group and from the socially utilitarian concept of the second group. It is different from the first in that it does not dichotomize reality into subjective and objective. As far as the function of art is concerned, it does not expect

art to create or recreate beauty. Beauty is accidental in the creative act and if it does occur it is neither objective nor subjective. It differs from the second group in that it believes that man can have his own view of beauty irrespective of whether such a view corresponds with the prevailing social or political *dicta*. With the second group it agrees that beauty is a relational property, a mental state, a form of awareness.

V

The Soviet discussion of beauty, presented in this article, is interesting from many points of view. From the standpoint of Soviet aesthetics it is interesting because this is the first time that Soviet aestheticians have publicly disagreed on an issue which was considered to be solved and beyond dispute. From the standpoint of aesthetics in general it is interesting because Soviet aestheticians have found it possible to discuss beauty in a way that their Western colleagues have done for a long time. It is also interesting for the over-all status of Soviet ideology. That ideology claimed to be universally sufficient, claimed to have ready answers for all problems and eventualities. But here it failed to be even a sufficient framework for discussion, let alone a directive force. This discussion conceded that there is no Marxian answer to this question and that what has been suggested in the past as Marxian was only an arrogance of those who control thought. Behind this discussion one senses the presence of a mind intoxicated with the desire for freedom. That mind does not want 'canned' answers. All it pleads for is freedom to search for itself without official guarantee of finding what it hopes to find. N. Koržavin expressed this desire very well when he said: "But if it is known in advance what one has to search for, how to search for, what to find, what is then the role of an artist?" [67]

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SIEGFRIED MÜLLER-MARKUS

ERWIDERUNG AN M. E. OMEL'JANOVSKIJ

In *VF* 1963, 11 polemisiert M. E. Omel'janovskij gegen die Darstellung der sowjetischen Relativitätsdiskussion durch Wolfgang Büchel[1] und S. Müller-Markus.[2] Da Professor Büchel sich im wesentlichen auf die letztgenannte Arbeit stützt, fühlt sich der Verfasser zu einer Erwiderung veranlaßt.

Omel'janovskij's Aufsatz steht unter dem polemischen Titel 'Po povodu fal'sifikacij professora V. Bjuchelja' (Zur Fälschung von Professor W. Büchel). Diese "Fälschung" sieht er in folgenden Punkten:

1. Unter dem "Einfluß der großen Siege des Sozialismus und Kommunismus und auch der hervorragenden Erfolge der sowjetischen Wissenschaft erringen die Ideen des Marxismus-Leninismus in der ganzen Welt eine unerhörte Anziehungskraft und der dialektische Materialismus wirkt stärker und stärker auf die Geister der Naturforscher des Westens". Deshalb verstärkt die bürgerliche Philosophie ihre Angriffe gegen den Diamat. Insbesondere gilt dies für die Neothomisten, welche die moderne Naturwissenschaft zur Verzerrung ihrer philosophischen Folgerungen unter ihre Aegide nehmen. Dem dient auch die Zeitschrift *Ost-Europa-Naturwissenschaft* (!). So entstellt auch W. Büchel in seiner Darstellung der sowjetischen Relativitätsdiskussion die Tatsachen; sie "trägt einen äußerst einseitigen und tendenziösen Charakter". Dies geht offenbar auf eine ungenügende Kenntnis der Dinge bei W. Büchel und bei S. Müller-Markus, auf den er sich beruft, zurück.

2. Nach Büchel ging die Diskussion um die Frage, ob und wie weit die Relativitätstheorie (im folgenden RT) eine Form des physikalischen Idealismus darstellt. Das ist falsch, da es in der sowjetischen Literatur keinen offiziellen Standpunkt gab, wonach die RT eine Form des physikalischen Idealismus darstelle. Lenin nannte Einstein einen großen Reformator der Naturwissenschaft. In der UdSSR gibt es freie, kameradschaftliche Diskussionen als allgemein anerkannte Voraussetzung für die Entwicklung der Wissenschaft. Auch in der Diskussion um die RT kam es neben richtigen Thesen zu Irrtümern. Es ist nicht wahr, daß wie

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Büchel behauptet, in dem redaktionellen Aufsatz der *VF* 1955, 1, 134–138, die Wertung der RT radikal revidiert wurde.

3. Nach Büchel sahen alle Sowjetphilosophen in der RT eine idealistische Haeresie, während sie alle sowjetischen Physiker verteidigten. Auch der Philosoph I. A. Naan wird dabei zu den Physikern gerechnet. Das Bemühen, die Philosophen mit den Physikern zu entzweien, geht von der reinsten Utopie aus. Schon in den zwanziger Jahren waren es gerade die Physiker A. K. Timirjazev und V. F. Mitkevič, die die RT angriffen, ohne dabei die Majorität zu vertreten. Auch heute gibt es vielleicht, sowohl unter den Philosophen wie den Physikern im In- und Ausland, Gegner der physikalischen Ideen Einsteins.

4. Einstein selbst gab Anlaß zu den Angriffen der Materialisten, die fälschlicherweise seine persönlichen Auffassungen mit der RT gleichsetzten. Als er die spezielle RT entwickelte, stand er unter dem Einfluß von Mach, während er bei der Aufstellung der allgemeinen RT und später den Positivismus verwarf.

5. Wer den wissenschaftlichen Inhalt der RT ablehnt, zeigt eine dogmatische Haltung und begreift nicht, daß nicht nur die Außenwelt, sondern auch ihre Widerspiegelung in der Wissenschaft einer Entwicklung unterliegt. Die RT ist ein neuer Schritt in der Erkenntnis der evolutionierenden Außenwelt und stellt folglich eine Stütze des Diamat dar.

6. Entgegen Büchel wurden auf Veranlassung der Philosophen in den *VF* die nihilistischen Auffassungen einzelner Physiker und Philosophen zur RT kritisiert, während nach Büchel dies auf den Widerstand der Physiker zurückgegangen sei. In der UdSSR gibt es schon lange ein Bündnis von Philosophen und Naturwissenschaftlern. Die RT-Diskussion hat dieses Bündnis verstärkt. Das Diskussionsergebnis betrifft nicht eine offizielle Anerkennung der RT, sondern im wesentlichen den nihilistischen Standpunkt Maksimovs, der von Büchel allen Philosophen zugeschrieben wird.

7. Der Tendenzcharakter des Beitrages von Büchel zeigt sich an der These, daß der Hintergrund der Konferenzen in Char'kov 1948–1952 vollkommen unbekannt sei. Diese Konferenzen betrafen in Wirklichkeit die Quantenmechanik und fassten die Arbeit eines philosophischen Seminars zusammen.

8. Fock hat nach Büchel in *Die Theorie von Raum, Zeit und Gravitation* (1955)[3] ebenso wie A. D. Aleksandrov in *Der Philosophische Inhalt und die*

Bedeutung der RT (1958)[4] den Wesenskern der RT befreit. Büchel verschweigt aber die Schlußfolgerung: Entweder bedarf es keiner Befreiung der RT von subjektivistischen Elementen oder diese sind von der RT untrennbar oder die philosophische Diskussion um die RT ist müssig. Büchel möchte, daß aus seiner scheinbar objektiven Darlegung der Gedanken Focks und Aleksandrovs und der Diskussion ihrer Ideen in der Sowjetliteratur (wo z.B. J. B. Ginzburg ihnen widerspricht) der Leser selbst die Nutzlosigkeit des Diamat für die heutige Physik einsieht; aber gerade die Diskussionen der Anhänger des Diamat, zu dem sich auch Fock bewußt bekennt, bestätigen die Lebenskraft dieser Lehre.

9. Es ist "vollkommendster Unsinn", daß die sowjetischen Autoren in der Vorstellung einer Feldenergie ohne materiellen Träger etwas wie eine Bewegung ohne etwas Bewegtes befürchteten und deshalb gegen die einsteinsche Gleichung $E = mc^2$ opponierten. Das Feld ist ebenso wie der Stoff eine Materieform und es gibt keine Umwandlung von Masse in Energie oder von Materie in Energie, da sowohl m als E gleichzeitig sich verändern können, ohne jedoch ineinander überzugehen.

Schließlich verschweigt Büchel die Arbeiten vieler sowjetischer Autoren über die RT: z.B., M. B. Mitin, 'Filosofskaja nauka v SSSR za 25 let', *Pod znamenem marksizma* 1942, 11/12; S. I. Vavilov, Lenin i sovremennaja fizika', *Sobr. Soč.*, t. III, 1956; M. E. Omel'janovskij, *V. I. Lenin i fizika XX veka*, 1947; und *Filosofskie voprosy sovremennoj fiziki*, 1959.

Der Angriff Professor Omel'janovskijs verdient eine Erwiderung aus drei Gründen:

(1) Prof. Omel'janovskij ist einer der offiziell führenden Naturphilosophen der UdSSR, Mitglied der AN der Ukrainischen SSR und stellvertretender Direktor des IF der AN in Moskau. Er ist seinen westlichen Kollegen durch internationale Konferenzen und seine zahlreichen Veröffentlichungen über die Philosophie der Quantenmechanik bekannt.

(2) Omel'janovskij berührt einen zentralen Punkt des sowjetischen philosophischen Denkens, nämlich dessen Verhältnis zur Physik.

(3) Der Verfasser dieser Zeilen ist der Ansicht, daß die sowjetische Diskussion über die Physik philosophisch interessant ist, und verfolgt mit seinen eigenen Veröffentlichungen das Ziel, ein wissenschaftliches Gespräch mit der sowjetischen Philosophie der Physik in Gang zu bringen. Behauptungen wie die oben zitierten Omel'janovskijs können

allerdings nicht als Grundlage einer solchen Diskussion gelten. Im Interesse einer sachlichen Auseinandersetzung sei daher folgendes bemerkt:

1. Der Verfasser hat sein Buch *Einstein und die Sowjetphilosophie* im Manuskript den wichtigsten der darin erwähnten sowjetischen Autoren mit der Bitte um Korrektur und Ergänzung zugesandt, darunter auch Prof. Omel'janovskij selbst, jedoch leider nie eine Antwort erhalten. Der einzige sachliche Einwand, den Omel'janovskij indirekt durch seinen Angriff auf Professor Büchel gegen meine Darstellung äußert, schmilzt darauf zusammen, daß ich nicht die Konferenzberichte von Charkov und die auf S. 116 genannte Literatur kenne. Die Konferenzberichte sind meines Wissens nie veröffentlicht worden, und was die Literatur betrifft, so haben Mitin und Omel'janovski 1942 bzw. 1947 natürlich noch eine positive Stellung zur RT eingenommen, wie im übrigen auch Maksimov vor 1951. Dasselbe gilt auch für S. Vavilov. Das Sammelheft *Philosophische Probleme der modernen Physik* 1959[5] verhält sich natürlich ebenso positiv zur RT. Es handelt sich aber gerade um die Zeit von 1951–1955 und hier haben die führenden sowjetischen Naturphilosophen die RT verworfen.

2. Die Verwerfung erfolgte unter der ausdrücklichsten Berufung auf den Diamat; die Ankläger Einsteins waren vornehmlich Akademiemitglied Maksimov, Mitglied des Redaktionskollegiums der *VF*, und I. V. Kuznecov, der Maksimovs Stelle nach der Anerkennung der RT 1955 im Redaktionskollegium der *VF* einnahm und gegenwärtig Direktor des Zentralbüros der Methodologischen Seminare der AN ist also die organisatorische Schlüsselstellung der gesamten sowjetischen Naturphilosophie innehat. Die RT wurde in dem bekannten "Grünen Buch" der AN "Philosophische Fragen der modernen Physik", 1952 einhellig verurteilt.[6] Noch 1954 hat I. V. Kuznecov im Namen des Diamat auf der Konferenz in Kiev die physikalische Grundposition der RT als mit dem Diamat unvereinbar erklärt, wobei von Seiten der Philosophen damals kein Widerspruch erhoben wurde, während die dort versammelten Physiker einstimmig die RT verteidigten. Tatsächlich wurde die RT als physikalische Theorie und nicht nur in ihrer Einschätzung durch Einstein selbst von der organisatorisch herrschenden Philosophengruppe seinerzeit ebenso offiziell verurteilt wie die Genetik, die Resonanztheorie, die Theorie des expandierenden Weltalls, die Kybernetik. Der bekannte re-

daktionelle Artikel der *VF* 1955, 1 muß daher nach Lage der Dinge als offizielle Anerkennung der RT gewertet werden.[7]

Damit ist jedoch nicht gesagt, daß

(a) alle Philosophen die Angriffen gegen Einstein unterstützten;

(b) keiner der Philosophen im Laufe der Zeit seine Ansicht änderte; und (c) alle Physiker die philosophische Haltung Einsteins verteidigen. Ich habe gerade in meinem Buch gezeigt, daß zu allen drei Punkten das Gegenteil der Fall ist: Von Anfang an herrschte eine lebhafte und freie Diskussion, wie sie auf anderen Gebieten zu Stalins Zeiten kaum möglich war. Nicht nur sowjetische Physiker, sondern auch Philosophen haben die RT verteidigt; sowohl einige Naturwissenschaftler wie V. A. Fock und A. D. Aleksandrov als auch die Mehrheit der Philosophen unterschieden und unterscheiden heute bewußt zwischen der RT und ihrer philosophischen Deutung durch Einstein. Aber die führenden Philosophen haben zwischen 1952 und 1955 so wesentliche Positionen der RT selbst als mit dem Diamat unvereinbar verworfen, daß sie diese Unterscheidung selbst gar nicht mehr konsequent durchführten. Heute zählt I. V. Kuznecov, wie der Fall "Maneev" zeigt, zu den leidenschaftlichsten Verteidigern der Relativitätstheorie.

3. Naan ist Physiker und Astronom, nicht wie Omel'janovskij behauptet, Philosoph. In den zwanziger Jahren gingen die Angriffe gegen die RT sicher von den Physikern aus und gerade Maksimov hat nach anfänglichem Zaudern die RT verteidigt. Desto erstaunlicher war sein Stellungswechsel 1952, als er völlig unmotiviert mit einem Mal das "reaktionäre Einsteinianertum" angriff und die Physiker die RT verteidigten. Es wäre interessant zu erfahren, welche internen Vorgänge dazu führten.

4. Sicher ist Einsteins philosophische Haltung komplex, was ich gerade in meinem Buch zu zeigen versuchte. Das war aber kein Anlaß zu den vehementen Attacken zwischen 1952 und 1955. Was ich der damaligen Sowjetphilosophie zum Vorwurf mache, ist ja nicht eine Abweichung von Einsteins Philosophie, sondern von den elementaren Regeln einer sachlichen Diskussion: Einstein wurde in jeder Hinsicht als Philosoph und als Physiker mißverstanden und es bedurfte des Eingreifens der autoritativsten Physiker, um die Diskussion ins rechte Geleise zu bringen. Seit 1955 haben wir tatsächlich eine sachliche Auseinandersetzung und ich möchte dies hier als einen der bemerkenswertesten Züge in den Wandlungen der Sowjetphilosophie feststellen.

5. Diese Wandlung ist jedoch kaum, wie Omel'janovskij meint, als Bestätigung für den Diamat, sondern als Kennzeichen der Lebenskraft wissenschaftlicher Einsichten wie der RT aufzufassen.

6. Die Diskussion um die RT hat zu einem schweren Trauma der Philosophen gegenüber den Physikern geführt. Der Schock wirkt auch heute noch offensichtlich nach, denn wirklich originelle philosophische Deutungen der RT finden wir nur bei den Naturwissenschaftlern, vor allem in A. D. Aleksandrovs Beitrag auf der Allunionskonferenz 1958. Die Philosophen beschränken sich im wesentlichen auf Programme und gelegentliche Detailuntersuchungen. Von einer wirklich philosophischen Bewältigung des Raum-Zeit-Problems auf dem Niveau Weyls, Whiteheads, Reichenbachs und Nikolai Hartmanns fehlt bei den sowjetischen Philosophen noch jede Spur.

7. Diese kritischen Bemerkungen seien jedoch durch ein persönliches Bekenntnis des Verfassers ergänzt. Ich bin nicht der Ansicht, daß die zuletzt erwähnte Situation immer so bleiben wird. Die sowjetische Philosophie zeigt Tendenzen, die auf eine Synthese zwischen analytischer Grundlagenforschung und einer neuen Ontologie abzielen. Die Impulse kamen bisher freilich fast alle aus der Naturwissenschaft. Die sowjetische Philosophie hat ihr eigentliches Kapital, das sie für eine solche Synthese mitbringen könnte, noch wenig genutzt: nämlich den Nachweis der Tragfähigkeit eines Erkenntnis-Realismus und einer an den Naturwissenschaften orientierten Ontologie. Solange sie auf Lenins Polemik gegen Einzelströmungen des zeitgenössischen Denkens fixiert bleibt und nicht die großen Denker unseres Jahrhunderts unvoreingenommen studiert, wird ihr der eigentlich philosophische Horizont der heutigen Physik verschlossen bleiben: Der Kampf um die Wahrheit wird nicht im Nebel der Polemik ausgetragen.

ANMERKUNGEN

1. *Physikalische Blätter* 1961, Heft 6.
2. *Einstein und die Sowjetphilosophie.* Dordrecht. 1960.
3. *Teorija prostranstva, vremeni i tjagotenija.* Moskva. 1955.
4. *Filosofskoe soderžanie i značenie teorii otnositel'nosti.* Als Manuskript erschienen Moskau, 1958; gekürzt in *VF* 1959, 1.
5. *Filosofskoe voprosy sovremennoj fiziki.* Moskva. 1959.
6. *Filosofskie voprosy sovremennoj fiziki.* Moskva. 1952.
7. 'K itogam diskussii po teorii otnositel'nosti'. *VF* 1955, 1, 134–138.

NOTES AND COMMENTS

DISKUSSION IN DUBNA ÜBER DIE METHODOLOGISCHEN PROBLEME DER PHYSIK

I. A. Alekseev berichtet in *VF* 1963, 12, 155–158 über eine "philosophische Diskussion" in Dubna, welche am 6.–7. Juni 1963 stattfand und sich mit methodologischen Problemen der gegenwärtigen Physik beschäftigte.

Die von Moskau etwa 160 km entfernt liegende Kleinstadt Dubna ist das Zentrum der sowjetischen physikalischen Forschung. Ihr weltbekanntes Institut für Atomphysik wurde März 1956 gegründet. Es ist charakteristisch für die heutigen sowjetischen Verhältnisse und die neuere Entwicklungslinie der kommunistischen Ideologie, daß die Naturwissenschaftler und die eingeladenen Philosophen (Mitglieder des IF der AN) eben in diesem Zentrum der modernen physikalischen Forschung die gegenseitige Abhängigkeit von Naturwissenschaften und Diamat von neuem proklamiert haben. Es scheint, daß die Philosophen im Umgang mit den physikalischen Theorien und die Physiker im Umgang mit der Ideologie viel vorsichtiger, aber auch gründlicher geworden sind, als dies noch vor einigen Jahren der Fall war.

Wie man aus dem Bericht von I. A. Alekseev entnehmen kann, besteht zwischen dem philosophischen Institut der Akademie und dem Institut für Kernforschung in Dubna seit einiger Zeit "enge wissenschaftliche Verbindung". Die Meinungen über die philosophischen Probleme der gegenwärtigen Naturwissenschaften werden regelmäßig ausgetauscht. Um die philosophischen Probleme der modernen Physik zu erörtern, wurde in Dubna sogar ein Seminar unter Leitung des "hervorragenden sowjetischen Wissenschaftlers B. M. Pontecorvo"* eingerichtet. Hier werden nach Alekseev interessante Ideen über die Rolle des Strukturbegriffes für eine philosophische Durchdenkung der Physik und über die Wechselbeziehung zwischen wahrscheinlichkeitstheoretischen und dynamischen Gesetzmäßigkeiten diskutiert.

An diesem Seminar lesen auch Fachphilosophen über dialektische und formale Logik, so A. A. Zinov'ev, E. V. Il'enkov, Ju. N. Davydov und N. V. Motrošilova. Dabei werden auch Probleme wie Phänomenologie,

* B. M. Pontecorvo ist ein Schüler Fermis und in die UdSSR emigriert.

philosophische Bedeutung der mehrwertigen Logiken, das Ideale und die Rolle der Kunst im wissenschaftlichen Schaffen behandelt.

Andererseits hielten Mitarbeiter des Kernforschungsinstitutes, in der "Abteilung für philosophische Fragen der Naturwissenschaften" des IF naturwissenschaftliche Vorträge. Vor dem von I. V. Kuznecov geleiteten Seminar sprach M. I. Podgoreckij über seine Pläne zur Erforschung der Antigravitation.* L. I. Lapidus beschrieb die starke und schwache Wechselwirkung zwischen Elementarteilchen.

Die Konferenz am 6.–7. Juni 1963 in Dubna war durch die Verbindung zwischen Physikern und Philosophen gut vorbereitet. Die Referate wurden von Physikern *und* Philosophen gehalten. Da kein Protokoll vorliegt, ist man zu ihrer Beurteilung, (abgesehen von einem Artikel "Über Quantengesamtheiten" von D. I. Blochincev, *VF* 1963, 9) auf den Bericht Alekseevs angewiesen.

B. M. Pontecorvo sprach über die methodischen Prinzipien Enrico Fermis. Nach Pontecorvo hatte Fermi eine elementar-materialistische Weltanschauung, glaubte an die Einheit von Theorie und Praxis und vermied in seiner Forschungsarbeit die subjektivistischen Methoden. Er war jedoch nicht frei von positivistischen Einflüssen.

Dem Vortrag Pontecorvos folgte eine Diskussion über die neuen Interpretationen der Quantenmechanik, an der sich u.a. auch der Direktor des Forschungsinstitutes in Dubna, D. I. Blochincev und der bekannte Philosoph M. E. Omel'janovskij beteiligten.

D. I. Blochincev verteidigte seine statistische Auffassung. Er zeigte die Entstehung der Konzeption "Quanten-Gesamtheiten" aus der klassischen statistischen Mechanik. Er betonte ausdrücklich, daß es zwischen klassischer und Quantenmechanik einen prinzipiellen Unterschied gibt. Die Wellenfunktion beschreibt nicht den Zustand eines einzelnen Teilchens, sondern *nur* einer Gesamtheit.

Omel'janovskij wies auf die Rolle der dialektischen Gegensätze in der Quantentheorie hin. Er behauptete allen Ernstes den Einfluß der Dialektik (besonders der Hegelschen) auf die Schöpfer der Quantentheorie Planck, Bohr und Heisenberg. Auch die Theorie der Elementarteilchen werde dank der "Virtualität" von dialektischen Gegensätzen beherrscht.

* Zur Theorie von K. P. Stanjakovič über "gewichtslose Materie" s. Maurice A. Garbell, *Soviet Research on Gravitation*, San Francisco, 1960.

A. A. Tjapkin analysierte die neuen Interpretationen der Quantenmechanik und wandte sich gegen die positivistische Deutung der physikalischen Realität und die idealistische Auslegung des Komplementaritätsprinzips. Er untersuchte konkrete Varianten der Vorstellung von gemeinsamen Orts- und Impulskoordinaten für die Beschreibung quantenmechanischer Prozesse.*

Einige Philosophen diskutierten logische und informationstheoretische Fragen. Man kann daraus entnehmen, daß die Sowjet-Philosophen ihre Position im "Bund von Philosophen und Physikern" neuerdings auch durch wirklich wissenschaftliche Methoden zu verstärken versuchen.

So sprach der Philosoph Akčurin z.B. über die Bedeutung des (Kolmogorovschen) Begriffes der Information für die naturwissenschaftliche Forschung. Bei dem Eindringen "in die Tiefe der Materie" geht eine sprunghafte Zunahme von Informationen vor sich. Von hier aus ist es möglich, mit Hilfe der Fejnmanschen Methode und des Wienerschen Integrals alle üblichen Ergebnisse der Quantenmechanik und der Quantenfeldtheorie zu erhalten.

Nach Alekseev ist es interessant, "daß in der Diskussion einer der Mitarbeiter des Bohrschen Institutes in Kopenhagen, der jetzt als Austausch-Forscher in Dubna arbeitet, den Einfluß des Positivismus auf die sogenannte 'Kopenhagener' Interpretation der Quantenmechanik in sehr energischer Form verneinte."**

Ja. A. Smorodinskov (Dubna) referierte über die Struktur des wissenschaftliches Beweises in der gegenwärtigen Physik: In der Physik spiele weder die induktive noch die deduktive Methode eine dominierende Rolle; man verwende eher die Synthese beider.

Der Philosoph A. A. Zinov'ev analysierte die Bedeutung der logisch-mathematischen Methode und schlug vor, die Fragen der Anwendungsmöglichkeiten der abstrakten logisch-mathematischen Konstruktionen auf die Probleme der heutigen Physik auch im allgemeinen zu untersuchen.

Zuletzt sprachen die Philosophen D. P. Gorskij und V. A. Smirnov. D. P. Gorskij diskutierte die Lösung der Zenonschen Aporien durch die mathematische Logik. Alle Vorträge zur Logik der Wissenschaftstheorie riefen nach Alekseev großes Interesse hervor.

L. V. Nagy

* Nähere Angaben fehlen.

** S. 157. Aus dem Bericht kann man den Namen des Physikers leider nicht entnehmen.

PRAXIS UND ERKENNTNIS

Die *Deutsche Zeitschrift für Philosophie* (im folgenden *DZfPh*) veröffentlichte in den Jahren 1961 bis 1963 eine Reihe von Beiträgen zu dem Thema: das Verhältnis von Praxis und Erkenntnis. Diese in scharfer Form geführte Diskussion verdient wegen der Bedeutung des Themas und dem z.T. beachtlichen Niveau der Beiträge Beachtung.

Eröffnet wurde die Diskussion durch einen Artikel von G. Klaus und D. Wittich: 'Zu einigen Fragen des Verhältnisses von Praxis und Erkenntnis' (*DZfPh* 1961, 11, 1377–1396). In elf weiteren Artikeln wurde zu den Ansichten von Klaus und Wittich und zu dem Thema im allgemeinen Stellung genommen:

Klotz, H.: 'Einige Bemerkungen zum marxistischen Praxisbegriff und zum Verhältnis von theoretischer und praktischer Tätigkeit'. *DZfPh* 1962, 3, 333–351.

Müller, W., Thom, M.: 'Zu einigen Fragen des Verhältnisses von Praxis und Erkenntnis'. *DZfPh* 1962, 4, 456–463.

Gössler, K., Stoljarow, V.: 'Bemerkungen zum Verhältnis von Praxis und Erkenntnis'. *DZfPh* 1962, 4, 464–480.

Kreschnak, H.: 'Zur Dialektik von Praxis und Erkenntnis'. *DZfPh* 1962, 8, 1047–1067.

Grunwald, M., Höfer, M., Redeker, H.: 'Zum Verhältnis von Theorie und Praxis'. *DZfPh* 1962, 8, 1068–1073.

Lerche, W.: 'Erkenntnis und materielle Veränderung – zwei Seiten der Praxis'. *DZfPh* 1962, 9, 1167–1175.

Fuchs-Kittowski, M., Löther, R.: 'Zum Verhältnis von geistiger, wissenschaftlich-theoretischer und praktischer Tätigkeit'. *DZfPh* 1962, 9, 1176–1185.

Ley, H.: 'Bemerkungen über das Verhältnis von Theorie und Praxis'. *DZfPh* 1962, 10, 1318–1328.

Rutkewitsch, M. N.: 'Für eine dialektische Auffassung der Praxis'. *DZfPh* 1962, 11, 1430–1445.

John, E.: 'Ästhetik und sozialistische Praxis'. *DZfPh* 1963, 1, 80–93.

Wahl, D.: 'Theorie und Praxis beim Aufbau des Sozialismus'. *DZfPh* 1963, 6, 757–770.

In einem abschließenden Artikel nahmen Klaus und Wittich zu den

Beiträgen Stellung: 'Zum Problem der Differenzierung in der Praxis – Erkenntnis – Relation' (*DZfPh* 1963, 9, 1152–1163).

Es geht Klaus und Wittich vor allem darum, den Begriff der Praxis in der Beziehung von Erkenntnis und Praxis neu zu überdenken. Bereits Marx – sagen sie – verstand unter Praxis ausschließlich die Produktionstätigkeit, was aus dem historischen Rahmen seiner Untersuchungen erklärlich ist; in der weiteren marxistischen Tradition wurde der Praxisbegriff ebenso oft auf die materielle Produktion eingeschränkt, wie z.B. bei M. N. Rutkewitsch. Außerdem wurde der Ausdruck meist zu global gebraucht, um etwas erklären zu können. In Wirklichkeit gibt es nicht nur Praxis im allgemeinen, sondern eine Menge verschiedener Praxisformen. Klaus und Wittich wollen den Begriff der Praxis folglich erweitern und differenzieren.

Sie schlagen die folgende Definition vor: "Nach unserer Ansicht ist Praxis jede materielle oder ideelle Tätigkeit, die unmittelbare Grundlage, unmittelbares Ziel und unmittelbares Wahrheitskriterium von Erkenntnissen ist" (1961, 11, 1391). Dies scheint ihnen der beste Ausdruck der marxistischen Grundidee zu sein, daß jede Erkenntnis von der Praxis ausgeht und nur in der Praxis ihre Anwendung und das Kriterium ihrer Wahrheit findet.

Das auffallende dieser Definition ist, daß auch ideelle (also geistige, theoretische) Tätigkeit als mögliche Praxisform genannt wird. Dies ist deshalb so, weil auch ideelle Tätigkeit unmittelbare Grundlage, Ziel und Wahrheitskriterium von Erkenntnissen sein kann. Klaus und Wittich erklären das am Beispiel der Meta-Theorien, deren direkte Grundlage, Ziel und Wahrheitskriterium andere Theorien sind (vgl. 1961, 11, 1389).

In den Antworten auf den ersten Artikel wird ausnahmslos zugestanden, daß Klaus und Wittich einen interessanten Versuch unternommen und wichtige Probleme behandelt haben. Doch darauf folgt ebenso ausnahmslos eine scharfe Kritik. Klaus und Wittich wollen den von den Klassikern eingeengten Praxisbegriff erweitern. Fast alle Diskussionsteilnehmer versuchen zu zeigen, daß die Klassiker die Praxis gar nicht nur als Produktionstätigkeit verstanden haben, so z.B. Müller, Thom (1962, 4, 457), Gössler, Stoljarow (1962, 4, 467) und Kreschnak (1962, 8, 1051). Vielmehr verstanden sie darunter jede die *Natur* und *Gesellschaft umgestaltende* Tätigkeit, wie Klotz (1962, 3, 342) und Müller, Thom (1962, 4,

457) hervorheben. Somit erweist sich die von Klaus und Wittich vorgeschlagene Erweiterung des Praxisbegriffs als unnötig.

Etwas wesentliches haben Klaus und Wittich ganz außer acht gelassen, nämlich daß Praxis *gesellschaftliche Tätigkeit* ist. Dieser Aspekt ist es gerade, der es den Klassikern erlaubt, das Problem der Beziehung zwischen Praxis und Erkenntnis richtig zu lösen (vgl. Klotz: 1962, 3, 341; Kreschnak: 1962, 8, 1054; Ley: 1962, 10, 1322–1323), was dem traditionellen Materialismus noch nicht gelungen war.

Mit der von Klaus und Wittich gegebenen Definition der Praxis erklärte sich keiner des Diskussionsteilnehmer einverstanden. Alle lehnten es ab, daß Praxis *unmittelbares* Ziel, *unmittelbare* Grundlage und *unmittelbares* Wahrheitskriterium der Erkenntnis sein solle. Vielmehr ist Praxis nur das *letzte* Ziel, die *letzte* Grundlage und das *letzte* Wahrheitskriterium der Erkenntnis. Davor mögen viele Zwischenstufen liegen, die jedoch zur Erkenntnis und nicht zur Praxis gerechnet werden müssen. Das Aufweichen des Praxisbegriffs wird hiermit vermieden und die materialistische Grundlage der Theorie von Praxis und Erkenntnis bewahrt (vgl. Müller, Thom: 1962, 4, 460; Rutkewitsch: 1962, 11, 1439).

Für einige der Diskussionsteilnehmer, wie Müller, Thom und Gössler, Stoljarow, scheint die Frage somit gelöst, indem die ideelle Tätigkeit unter Berufung auf die Klassiker von der Praxis ausgeschlossen wird. Für andere (vor allem Kreschnak, Lerche und Rutkewitsch) beginnt nur erst die eigentliche Untersuchung über die dialektische Einheit von materieller und geistiger Tätigkeit. Nach Meinung der letzteren (im Gegensatz zu Klaus, Wittich und Klotz: 1962, 3, 335) entspricht die Beziehung zwischen materieller und geistiger Tätigkeit genau der allgemeinen Beziehung zwischen *Materie* und *Bewußtsein.* Ebenso wie wir einerseits sagen: "alles Seiende ist Materie" und andererseits "Bewußtsein ist keine Materie", so sagen wir einerseits: "alle menschliche Tätigkeit ist Praxis" und andererseits "geistige Tätigkeit ist keine Praxis". Und Rutkewitsch fährt fort: "In beiden Fällen beinhaltet der Begriff 'Praxis' die materielle Tätigkeit der Menschen, aber im ersten Fall (außerhalb der Grenzen der Gnoseologie) geht alles in unserer Tätigkeit, im zweiten Fall (innerhalb der Gnoseologie) nicht alles in diese Materialität ein. *Ohne Dialektik* kann man sich in diesen 'Feinheiten' tatsächlich verirren und auf der Jagd nach einer äußerlich 'einfachen' Lösung zur direkten Identifizierung von Praxis und Theorie kommen." (1962, 11, 1437–1438).

Dialektische Einheit ist Einheit in der Verschiedenheit. Aber Rutkewitsch zeigt vor allem die Verschiedenheit von geistiger und materieller Tätigkeit auf (indem er den ontologischen und den gnoseologischen Aspekt unvermittelt nebeneinander stehen läßt) und verlegt die Auflösung des Gegensatzes in die Zukunft. Im Kommunismus ist der Gegensatz zwischen materieller und geistiger Tätigkeit aufgehoben (1962, 11, 1443–1445).

Für Kreschnak jedoch ist es gerade die Praxis, welche den Gegensatz zwischen Materie und Bewußtsein aufhebt. Für ihn sind in der praktischen Tätigkeit Materie und Bewußtsein eine untrennbare Einheit. Denn es gibt keine Praxis, die nicht zugleich materiell und ideell ist (1962, 8, 1049). Seine Definition der Praxis lautet: "Die Praxis ist der gesellschaftliche Prozeß der zielgerichteten Veränderung der objektiven Realität, der Natur, der Gesellschaft, des Menschen. Sie ist die untrennbare Einheit von materieller und ideeller Tätigkeit" (1962, 8, 1058–1059). Und weil die Praxis diese Einheit von materieller und geistiger Tätigkeit ist, müßte die Erkenntnistheorie – so folgert Kreschnak – zur Geschichte der konkreten Errungenschaften der Erkenntnis werden, die Gnoseologie zur historischen Wissenschaft (1962, 8, 1061). "Damit würde auch die geistige Entwicklung der Menschheit aus einem spontanen in einen geplanten Prozeß verwandelt werden können." (1962, 8, 1062).

Noch klarer drückt Lerche denselben Gedanken aus: "Die menschliche Praxis ist nun keineswege teils materiell und teils ideell, sondern sie ist komplex materiell und ideell, objektiv und zugleich subjektiv. Der relative Gegensatz von Materiellem und Geistigem, von Objektivem und Subjektivem wird ja gerade durch die Praxis, in der Praxis aufgehoben, zur Einheit geführt. Es gibt keine Praxis die nur materiell und keine, die rein geistig wäre. Die Praxis ist immer *zweckgerichtet*, hat also stets eine *subjektive* Prägung, zugleich ist sie aber auch immer *objektive* Tätigkeit. So notierte auch Lenin die Hegelsche Feststellung: 'daß die Tätigkeit die Subjektivität des Zweckes und damit die Objektivität, den Gegensatz... aufhebt.' (Lenin, *Aus dem philosophischen Nachlaß*, Berlin, 1954, S. 162)" (1962, 9, 1168).

Wir müssen uns hier begnügen, diese wenigen Hauptgedanken zu referieren, die in den vielen Seiten der Diskussion natürlich wesentlich differenzierter zum Ausdruck kamen. Auch Klaus und Wittich können in ihrer Antwort auf die Diskussionsbeiträge nur einige Gedanken heraus-

greifen und beantworten. Zunächst verwehren sie sich lange dagegen, daß sie gewisse Grundthesen des Marxismus-Leninismus bezweifelt oder eingeschränkt haben, wie sie etwa in den 'Thesen über Feuerbach' dargestellt sind (1963, 9, 1153–1157). Besonders scharf wenden sie sich dagegen, daß nur die materielle Tätigkeit letztlich oder *in letzter Instanz* Grundlage, Ziel und Wahrheitskriterium der Erkenntnis sein könne und daher sie allein Praxis sei. Alles auf 'die letzte Instanz' zurückzuführen erkläre gerade gar nichts – meinen sie –, daher müsse man eben die verschiedenen Praxisformen unterscheiden. Wenn auch geistige Tätigkeit Praxis sein könne, so bedeute das nicht, daß nicht die materielle Tätigkeit und speziell die Produktionstätigkeit die grundlegende Praxisform sei (1963, 9, 1158–1160).

Allerdings müssen Klaus und Wittich einräumen, daß die theoretische Tätigkeit im Rahmen der Marxschen Philosophie nicht zur Praxis gerechnet werden könne und zwar aus terminologischen Gründen. Statt deshalb verschiedene *Praxisformen* zu unterscheiden, wäre es besser von verschiedenen Formen der *Anwendung* der Erkenntnis zu sprechen (1963, 9, 1161).

Aus der Antwort geht jedenfalls klar hervor, daß Klaus und Wittich sich weder mit der Beschränkung der Praxis auf die materielle Tätigkeit zufrieden geben, noch mit den 'dialektischen' Lösungsversuchen der Frage viel anfangen können. – Eine Stellungnahme der Redaktion der Zeitschrift wird noch erwartet. *K. G. B.*

VARIA

"Ein Philosophie-Professor (in der SU) ... kannte nicht nur den Aristotelismus, sondern auch den heidnischen und den christlichen Existentialismus – Kierkegaard, Heidegger, Sartre, Marcel, Jaspers. 'Von den Schwierigkeiten bei der Beschaffung der Bücher und der Unterlagen können Sie sich keinen Begriff machen, aber es geht!' Er kannte auch die Kritik des Marxismus *(sic)* von Wetter und Bocheński. Ein 'Kandidat' der Philosophie klagt mir, daß er Thomas von Aquin nur aus Zitaten kenne. Eine Thomas-Gesamtausgabe sei in der ganzen Sowjetunion nicht aufzutreiben (und natürlich auch im Leihverkehr nicht zu bekommen)."

[Erik v. Kuehnelt-Leddihn, *Baseler Nachrichten* 22/23 II 1964, Nr. 79, 3.] *J. B.*

In *VF* 1963, 11, 180 heißt es lakonisch, "entsprechend der Verfügung des Präsidiums der AN über die periodische Erneuerung der Redaktions-Kollegien der Akademie-Zeitschriften wurde am 1. November 1963 eine neue Zusammensetzung des Redaktions-Kollegiums eingesetzt." Das neue Redaktions-Kollegium setzt sich wie folgt zusammen:

Mitin, M. B. (Chefredakteur, alt) Berg, A. I. (neu), Blauberg, I. V. (verantwortlicher Sekretär, neu), Zamoškin, Ju. A. (alt), Kartušin, V. A. (neu), Kedrov, B. M. (alt), Kelle, V. Ž. (neu), Kemenov, V. F. (neu), Koval'čuk, A. S. (Vertreter des Chefredakteurs, neu), Kopnin, P. V. (alt), Leont'ev, A. N. (neu), Maslin, A. N. (alt), Mikulinskij, S. R. (neu), Sačkov, Ju. V. (neu), Stepanjan, P. A. (alt), Ukraincev, B. S. (alt), Šiškin, A. F. (alt). *S. M.-M.*

The current issue (8, 1963) of the *Natural Law Forum* (University of Notre Dame, Indiana, VI + 214 pp.) is nearly entirely dedicated to Soviet thought, mostly to Soviet philosophy. The editors are to be congratulated for being able to gather such an impressive number of specialists in the field. It contains articles by J. M. Bocheński ('Soviet Philosophy, Past, Present and Prospects for the Future', pp. 7–20); George L. Kline ('Socialist Legality and Communist Ethics', pp. 21–34); D. Joravsky ('Soviet Marxism and Biology', pp. 35–50); Helmut Dahm ('"New People" and Old Ideals in the Soviet Union', pp. 51–78); with notes by Georges M. M. Cottier ('Marx's Conception of Man', pp. 78–105); Charles Lefèbvre ('Natural Equity and Canonical Equity', pp. 106–122); and reviews of *Marxismus-studien* by Nicolas Lobkowicz (pp. 137–146, a particularly brilliant piece of personal thinking), of Sartre's *Critique de la raison dialectique* by Frederick J. Crosson (pp. 146–149), Joravsky's *Soviet Marxism and Natural Science* by Ernan McMullin (pp. 149–159), Blakeley's *Soviet Scholasticism* by Richard J. Barnet (pp. 159–169). As a whole the volume supplies the English reader with a reasonably complete survey of the main trends in Soviet philosophy of to-day, a survey which was lacking up to now. *J. B.*

The *Ost-Probleme* are devoting most of their 24th issue of 1963 (24, 1963; 29, XI) to recent Communist discussions on Ethics. The issue contains materials connected with A. Schaff's *Philosophy of Man* (1961) in German translation: A critical article of A. Kol'man 'Filozofia czło-

wieka – w cudzysłowie i bez' (Philosophy of Man – in and without Quotation Marks; in *Przegląd Kulturalny* 1963, 10); an answer to A. Schaff under the same title and in the same issue; a comment of M. Fritzhand on this discussion: 'Filozofia człowieka a antropologia filozoficzna' (Philosophy of Man and Philosophical Anthropology); *Przegląd Kulturalny* (1963, 17) and the review of Schaff's *Philosophy of Man* in *VF* 1963, 1. The importance of the discussion made thus available to the German reader consists in its international character, a Czech, two Poles and a Russian taking part in it. *J. B.*

REVIEWS

I. B. Novik: *Kibernetika. Filosofskie i sociologičeskie problemy.* (Kybernetik. Philosophische und soziologische Probleme). Gospolitizdat. Moskva 1963. 208 str.

A. I. Kitov: 'Kibernetika' (Kybernetik). In: *Fizičeskij énciklopedičeskij slovar'* (Physikalisches enzyklopädisches Wörterbuch). Gos. naučnoe izd. Moskva 1962. Tom 2, str. 357–362.

'Kibernetika' (Kybernetik). In: *Filosofskij slovar'* (Philosophisches Wörterbuch). Politizdat. Moskva 1963. Str. 197–198.

I. ÜBERBLICK

I. B. Novik ist bereits durch einige Artikel über Probleme der Kybernetik bekannt [14–16]. Sein o.g. Buch kann man als ersten Versuch in der sowjetischen Literatur ansehen, die philosophischen und soziologischen Probleme der Kybernetik einigermaßen umfassend zu behandeln. Unbefangen erklärt Novik: "Eine äußerst wichtige Bedeutung für die Entwicklung dieser jungen Wissenschaft hatte die entscheidende Entlarvung jener vulgarisatorisch-dogmatischen Einstellung zur Kybernetik, die einigen sowjetischen Autoren in der Periode des Persönlichkeitskults eigen war." (S. 8).[1] Tatsächlich erschien in den letzten Jahren eine schnell wachsende Zahl von Artikeln und Büchern zur Kybernetik, insbesondere auch Übersetzungen westlicher Veröffentlichungen.

Die allgemeinen Tendenzen der sowjetischen Arbeiten findet man auch in Noviks Buch wieder: Die Rechtfertigung der Kybernetik als Wissenschaft; das Aufzeigen der historischen Notwendigkeit der Kybernetik auf Grund des Fortschritts der gesellschaftlichen Praxis und Theorie (S. 12, 34); das Bemühen, die in der Kybernetik auftretenden Begriffe und Ergebnisse in den Diamat, wenn auch durch Erweiterung seines Systems oder Verallgemeinerung seiner Kategorien, möglichst "glatt" einzubauen; das Bemühen, über die rein wissenschaftlichen Aussagen der Kybernetik hinaus zu Thesen zu gelangen, die als Bestätigungen des Diamat dienen können; der Nachweis der Unhaltbarkeit aller "idealistischen" und "mystischen" Erklärungen der Ergebnisse der Kybernetik[2] (S. 20, 34, 199), sowie andererseits der positivistischen Behauptung, daß allgemeinphilosophische Aussagen nicht nötig seien (S. 19, 199); die Kritik an den philosophischen Ansichten bedeutender Wissenschaftler des Westens (S. 199); die Betonung, daß zu einer folgerichtigen Lösung der von der Kybernetik gestellten komplizierten philosophischen Probleme eine schöpferische dialektisch-materialistische Position wichtig ist (S. 35), zusammen mit dem Bestreben, bei den westlichen Wissenschaftlern selbst eine spontan materialistische Haltung aufzudecken (S. 19); eine allergische Sorgfalt, schon den geringsten Anschein eines jeglichen Subjektivismus zu beseitigen. Neben einer richtigen Formulierung der methodologischen Probleme und einem gesamtheitlichen

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Herangehen an die philosophische Problematik verlangt I. B. Novik noch Geduld und Vorsicht gegenüber endgültigen Lösungen (S. 20ff.). Seine mehr persönliche Note wird deutlich in dem Versuch, alle Probleme durchgehend mit der Kategorie der Widerspiegelung in Verbindung zu bringen, sowie in der Betonung der Ordnung und der inhaltlichen Seite der untersuchten Phänomene.

Das Buch wurde von B. S. Ukraincev in den *VF* besprochen [24]. Danach gab Novik "eine interessante Analyse einiger philosophischer Probleme der Kybernetik, die vom Autor gestellte Aufgabe einer systematischen Untersuchung der philosophischen Fragen der Kybernetik blieb jedoch ungelöst. Deren Lösung erfordert weitere kollektive Anstrengungen. Bis heute fehlt es nicht nur an einer verallgemeinernden Arbeit über Kybernetik, sondern auch an seriösen und endgültigen Forschungen zu vielen philosophischen Problemen dieser Wissenschaft. Deshalb gibt es auch noch nicht genügend Material für eine systematische Prüfung aller philosophischen Probleme der Kybernetik im ganzen." ([24] S. 164)

Dieser an sich berechtigten Kritik ist hinzuzufügen, daß es auch vermessen wäre zu versuchen, alle aus der Kybernetik sich ergebenden philosophischen, methodologischen und soziologischen Fragen in einem kurzen Buche zu behandeln. Weiterhin sind die wesentlichen Probleme meist noch gar nicht klar und differenziert genug herausgearbeitet, um beantwortet werden zu können. Fragen wie die nach der Berechtigung der Kybernetik, nach ihrem Gegenstand und der Definition ihrer Begriffe nehmen bei dieser jungen Wissenschaft noch einen weiten Raum ein. Dies bedingt den oberflächlichen, provisorischen und programmatischen Charakter von Noviks Buch, was er übrigens selbst eingesteht. Novik bezieht sich einerseits meistens auf N. Wiener [26–28] und R. W. Ashby [1–4], andererseits auf Lenin und Engels und das Parteiprogramm von 1961 [19].

I. B. Noviks Buch ging der Sammelband "Philosophische Fragen der Kybernetik" [8], voraus. Er enthält den Meinungsaustausch 1958–1959, angeregt vom Lehrstuhl für Philosophie der Akademie der Gesellschaftswissenschaften am ZK und vom Institut für Automatik und Telemechanik der AN. Man findet dort elf Beiträge, die von verschiedenen Standpunkten aus Probleme der Kybernetik behandeln, zwei Berichte vom ersten und zweiten internationalen Kybernetikkongress in Namur sowie ein verhältnismäßig ausführliches Literaturverzeichnis. Vor allem ist Kol'mans Beitrag "Über philosophische und soziale Probleme der Kybernetik" erwähnenswert ([8], S. 86–109). Er erörtert zum Teil ähnliche Fragen wie Novik, wenngleich etwas weniger systematisch, verteidigt die Kybernetik und wendet sich gegen jede Zurückführung der einen Form von Gesetzmäßigkeiten auf eine andere, zum Beispiel der biologischen auf die mechanischen und stellt schließlich beim Vergleich von Mensch und Maschine stets das Primat des Menschen heraus. Novik selbst erwähnt als Beispiel einer Philosophie der Kybernetik G. Klaus *Kybernetik in philosophischer Sicht* [11] (S. 9) – ohne Zweifel eine gründlichere Analyse als die seine.

Unter dem Stichwort "Kybernetik" erläutert A. I. Kitov im "Physikalischen

enziklopädischen Wörterbuch" [10] sowohl vom allgemeinen, doch besonders vom wissenschaftlichen Standpunkt aus, womit sich die Kybernetik befaßt, und zwar auf eine lobenswert klare und umfassende Art und Weise. Dabei weist er häufig auch auf noch zu lösende Aufgaben hin. Ziemlich vorsichtig, was philosophische Erörterungen betrifft, mutet der recht gute Artikel "Kybernetik", jüngst erschienen im "Philosophischen Wörterbuch", [9] an. Man kann ein zwar vereinfachtes, aber sorgfältig ausgearbeitetes Bild von dieser Wissenschaft und ihrer Stellung zur marxistisch-leninistischen Philosophie bekommen.[3]

Die folgende Darstellung greift die zentralen Gedanken aus den o.g. Quellen heraus. Es soll damit ein Querschnitt der heutigen Kybernetik-Diskussion gegeben werden. Die eigene Kritik wurde auf das notwendigste beschränkt, gerade weil noch nicht genügend wissenschaftliche Grundlagen vorliegen.

Zur Übersetzung russischer Fachausdrücke sind zwei Schwierigkeiten zu bemerken: Der Ausdruck "*svjaz*'" hat mehrere Bedeutungen, nämlich im allgemeinen "Verbindung" oder "Zusammenhang", dann "Nachrichtenwesen", "Kommunikation" und "Kopplung", etwa in "*obratnaja svjaz*'" "Rückkopplung". Gleichfalls gibt es für "*upravlenie*" wenigstens im Deutschen zwei Übersetzungsmöglichkeiten: "Steuerung" oder "Regelung", wobei der Unterschied zwischen den beiden darin besteht, daß im Vorgang der Regelung immer Rückkopplung vorliegt. In beiden Fällen wird die Bedeutung des Wortes aus dem Kontext oftmals nicht ganz klar. Für "*upravlenie*" ist meist die Übersetzung "Regelung" benutzt.

II. REGELUNG

a. Regelungsprozesse

"Der charakteristische Zug jedes Regelprozesses ist das Vorhandensein eines Zieles. Regelung ist die Organisation eines zielgerichteten (zweckmäßigen) Verhaltens." ([10], S. 357). Die Kategorie "Regelung" (bzw. "Steuerung") kann in allgemeinster Form als "Ordnen eines Systems" aufgefaßt werden, was die Beliebigkeit der Natur ihres Objekts zeigt. Das Ordnen ist summarisch aufzufassen, denn es kann teilweise dabei auch Zerstörung auftreten. Es wird besonders deutlich im Zusammenhang mit der Optimierung. (S. 25)

Ukraincev wendet ein, daß mit dem zu allgemeinen Begriff des Ordnens die Grenzen der Anwendbarkeit der Kybernetik überschritten werden. Er solle durch "Organisation eines Systems" ersetzt werden. ([24], S. 161)

Die Regelung ist als Prozeß zwischen einem steuernden und einem gesteuerten System eine zweistellige Beziehung wie die Kausalität. Der Begriff "Kausalität" ist jedoch weiter als "Regelung". Für Novik ist die wichtigste Eigentümlichkeit der kybernetischen Regelung die Einheit von Regelung und Optimierung. "Wenn die Regelung qualitativ mit der Zweckmäßigkeit verbunden ist, so gibt die Optimierung die quantitativ konkretisierte Interpretation dieses Zusammenhanges." (S. 33). Dies führt zu einer ersten Definition der Kybernetik als "Wissenschaft von den allgemeinen Besonderheiten des Regelungsprozesses, von der Optimierung der Regelung (von der optimalen Regelung) und von der

Ausnützung der Information für die Optimierung der Regelung." (S. 33).

Nach A. I. Kitov ist außer dem Vorhandensein eines Zieles für den Regelprozeß noch das eines Algorithmus charakteristisch, eines Systems von Regeln, die klar und eindeutig den Prozeß der Realisation dieses Zieles bestimmen. Selbst die biologische Evolution betrachtet er als Regelprozeß mit der Anpassung der Organismen an die äußeren Bedingungen als Ziel und den Gesetzen der Natürlichen Zuchtwahl als Algorithmus ([10], S. 358).

Hier sei vor einer allzu großzügigen Übertragung wissenschaftlich-technisch präzisierter Begriffe (wie etwa der des Algorithmus, der bei theoretischen Überlegungen sowieso schärfer gefaßt werden muß – Normalalgorithmus) auf andere bis jetzt noch in geringerem Maße exakt beschriebene Gebiete gewarnt. Das Hauptanliegen bei solchen Erörterungen der Regelung ist natürlich die Gegenüberstellung von Kausalität und Teleologie sowie eine mögliche Zurückführung der letzteren auf die erstere: "Das Problem der Erforschung der Mechanismen der natürlich-ursächlichen Entstehung zweckmäßiger Regelsysteme der lebenden Natur ist eine der wichtigsten Aufgaben der Kybernetik." ([10], S. 358). Dabei kann über die Erklärung konkreter Übergänge vom kausal-determinierten Verhalten einzelner Elemente zu zweckmäßigen Verhaltensformen des ganzen Systems die Beziehung zwischen Kausalität und Zweckmäßigkeit einsichtig werden (ebd.).

b. Regelsysteme

"Jeder Regelprozeß ist immer mit irgendeinem organisierten System verbunden, das ein eigentlich regelndes System und geregelte oder ausführende Systeme, die durch Kommunikationskanäle vereint werden, in sich schließt." ([10], S. 357). "Regelsystem wird im allgemeinen Falle jedes physikalische Objekt genannt, das zielgerichtete Informationsverarbeitung durchführt." ([10], S. 360). Darunter fallen biologische Systeme (Erbinformation), lebende Organismen, das Gehirn, technische Automaten, ökonomische und andere gesellschaftliche Systeme, die Menschheit als ganze (wissenschaftliche Information). Dem Bau von Regelsystemen liegen zwei Prinzipien zugrunde: das der Rückkopplung und das des hierarchischen Charakters der Regelung (Garantien für Funktionsstabilität und Strukturökonomie) (ebd.). Nach Kitov sollte auch die Fähigkeit eines Regelsystems zur Informationsaufnahme und -verarbeitung an Hand folgender Faktoren geprüft zu werden: (1) Zusammenhang zwischen seinen Ausmaßen und der Grenzgeschwindigkeit einer Wirkungsausbreitung (Lichtgeschwindigkeit) in riesigen Regelsystemen. (2) Grenze der Fähigkeit von Regelsystemen sehr kleiner Abmessung, Information eindeutig aufzunehmen, wegen der hier geltenden Quantengesetze ([10], S. 361). Nach Novik kann hingegen das Weltall "als gigantisches, sich selbst regelndes System angesehen werden, das für sich selbst als Umwelt dient und auf sich selbst wirkt" (S. 179). Noviks Fehler ist die Konsequenz seiner These, daß "informative Kopplungen auch zwischen Objekten existieren können, die nach der Relativitätstheorie andere Formen der Kommunikation nicht besitzen können." (S. 175). Ukraincev

wendet hier kritisch ein, daß im Universum wegen seiner Unendlichkeit eine Wechselwirkung nicht in endlichen Zeiten erfolgen kann und daß Regelung immer ein Zentrum voraussetzt, wobei die Annahme eines Zentrums oder mehrerer Zentren des Alls aber einen gefährlichen Schritt zur Beseelung der Natur darstelle ([24], S. 163).

III. INFORMATION

a. Regelung und Information

Nach Novik erfolgt im Gegensatz zu direkter mechanischer Steuerung die kybernetische Regelung mit Hilfe von Signalen, die Information tragen (S. 32). Hingegen wird nach Ukraincev auch bei der mechanischen Regelung Information übertragen ([24], S. 162), was nach der Kitovschen Präzisierung des Begriffs "Information" kaum zu halten ist: "Information ist die durch das Gedächtnis vermittelte Aufnahme äußerer Einwirkungen durch das Regelsystem, wenn sie nur in irgendeinem Grade mit Spuren vorangegangener Einwirkungen verbunden ist, die im Gedächtnis dieses Systems gespeichert sind,..." ([10], S. 357).

b. Die Natur der Information

"Die Kardinalidee der Kybernetik ist die These von der Einheit der Kommunikations- und der Regelungsprozesse." (S. 49). Zur Begründung dieser Einheit genügen nach Novik quantitative Forschungsmethoden aber nicht. "Es ist völlig begreiflich, daß als Substrat, als Träger der ihrer Natur nach objektiven Regelungsprozesse eine Grundlage nicht dienen kann, welcher der objektive Inhalt entzogen ist. So ist die Anerkennung der Objektivität der Information das erste Prinzip zur Erforschung ihrer Natur." (S. 50). Weiter hilft dann eine Analogie zwischen den Begriffen "Information" und "Energie". Nach Engels ist die Energie das Maß der Bewegung, also verbunden mit der Bewegung, einem Attribut der Materie. Mit welchem Materie-Attribut aber soll die Information verknüpft sein? Nach Novik muß die Analogie zwischen Informationsmenge und Entropie[4] eine inhaltliche Grundlage haben. Aus der Sprechweise, daß Entropie ein Maß für die Unordnung eines Systems sei, schließt er: Information ist ein Ordnungsmaß. Doch welches ist das Substrat, das durch die Information in geordneter Form ausgedrückt wird?

Nach Wiener ist Information "weder Materie noch Energie", nach Ashby ist sie "keine Sache, die in anderen Sachen enthalten ist." A. A. Markov wies darauf hin, daß "Information" auf rein axiomatischem Wege nur ungenügend definierbar ist. ([7], S. 415). Novik geht nun von Lenins Hypothese der Widerspiegelung als einer Eigenschaft aller Materie aus und definiert: Das Substrat der Information ist die Widerspiegelung. "...Information kann man als Maß der Widerspiegelung betrachten. ...in der Strukturiertheit ihrer Symbole wird die Geordnetheit der Widerspiegelung ausgedrückt. ...Die Informationsmenge erweist sich als Maß der Geordnetheit der Widerspiegelung und die Quantität des Rauschens[5] als Maß des chaotischen Charakters der Widerspiegelung.

Diese Formulierung ist natürlich keine endgültige Definition." (S. 60). Die Einheit von Regelungs- und Informationsprozessen ergibt sich für Novik daraus, daß die Regelung ein Prozeß des Ordnens materieller Objekte ist, während die Information mit dem Ordnen des Attributs der Widerspiegelung zusammenhängt, wobei ein Zusammenhang von materieller Substanz und dem Attribut der Widerspiegelung vorliegt (S. 61).

Mit Recht kritisiert Ukraincev hier die Umständlichkeit und geringe Schlüssigkeit: "I. B. Novik will die Information mit der Widerspiegelung verbinden und verläßt dazu, anstatt den Begriff der 'Widerspiegelung' zur Erforschung der Grundlage des Inhalts jeder Information anzuwenden, die klaren und tadellosen Begriffe der Kybernetik und schreibt der Informationsmenge eine ihr nicht eigene und niemandem verständliche Bedeutung zu." ([24], S. 163). Was die Idee der Verbindung von Information und Widerspiegelung überhaupt betrifft, so hätten schon längst vor der ersten Veröffentlichung Noviks Moskauer Philosophen darüber diskutiert[6] (ebd.).

Dazu eine Bemerkung: Die Möglichkeit, einen Teil der Negentropie[7] als Information anzusehen, ergibt sich aus der Betrachtung physikalischer Zustände eines Systems bzw. physikalischer Prozesse, nämlich der Speicherung und Übertragung von Information.

c. Information und Physik

Novik diskutiert L. Brillouin *Science and Information Theory* [5], das vom engen Zusammenhang zwischen Informationstheorie und Thermodynamik handelt. Dort wird gezeigt, daß der Energieverbrauch bei einer Messung umso größer ist, je genauer die Messung, je größer also die erhaltene Information ist. Eine vollkommen genaue Messung ist deshalb unmöglich. Brillouin beschreibt dies als eine Art Unbestimmtheitsrelation der Informationstheorie. Darin sieht Novik "einige Elemente einer agnostischen Haltung ...Die Verabsolutierung des störenden Einflusses des Beobachters,..., kann nicht als fruchtbar anerkannt werden. ...man muß die Entwicklung der wissenschaftliche Theorie, ..., und den Fortschritt der Erkenntnismittel selbst berücksichtigen." (S. 73, 74).

Wieder eine Bemerkung: Diese Relation ist so gut fundiert wie der zweite Hauptsatz der Thermodynamik ("in einem abgeschlossenen System kann die Entropie nicht abnehmen"). Daß der Einfluß des Beobachters nur in bestimmten Fällen vernachlässigbar ist, schreibt auch Kitov ([10], S. 359).

Ein weiterer Mangel der heutigen Informationstheorie ist für Novik das Fehlen grundlegender Gesetze vom Typ der Erhaltungssätze. Er diskutiert als Beispiel die Vorlesung eines Dozenten und formuliert als "Summarisches Gesetz der Erhaltung der Widerspiegelung": $I + N = \text{const.}$, wobei Information I die geordnete Widerspiegelung und Rauschen N die ungeordnete Widerspiegelung darstellt. Er unterscheidet jedoch nicht zwischen dem nachrichtentechnischen und dem allgemeinen Begriff der Information. Seine Argumente für das o.g. "Gesetz" beruhen (a) auf einer bloßen Definition (Vorhandensein eines analogen "Gesetzes" für Entropie und Negentropie[7]) und (b) auf einem Irrtum (Wechsel-

seitige Umwandelbarkeit von Information und Rauschen). "...was die 'summarische Größe der Eigenschaft der Widerspiegelung' ist, die in einem abgeschlossenen System erhalten bleiben soll." ([24], S. 164), bleibt auch Ukraincev zu recht unverständlich.

Besonders erwähnt Novik die antientropische Natur der Information: Die Kosten zur Reproduktion der Information seien kleiner als ihre Fähigkeit, die Welt zu ordnen (er spricht von einer Doppelnatur der Information) (S. 78). Offenbar läßt er bei diesem Trugschluß wie auch bei einigen weiteren jeden Energieverbrauch, der nun einmal bei allen Informationsprozessen mitspielt[8], d.h. die Untrennbarkeit der Information von ihrem physikalischen Träger, außer Acht. Natürlich will er die Unhaltbarkeit eines "Wärmetod des Alls" (N. Wiener spricht auch von "Informationstod") nachweisen.

IV. DIE FUNKTIONALE NATUR DER KYBERNETIK

Die Universalität der Kybernetik hängt nach Novik mit ihrem funktionalen Zugang zur Welt zusammen. Während er zwischen einem physikalischen (energetischen) Zugang zu den Erscheinungen und einem funktionalen zu unterscheiden versucht, gliedert Kitov die Methoden der Kybernetik in Makroverfahren (Untersuchung der Gesamtfunktionen etwa nach der Methode des "schwarzen Kasten") und Mikroverfahren (Untersuchung der Elemente, des Algorithmus,...) ([10], S. 361, vgl. auch [9], S. 197). Novik befaßt sich insbesondere mit der philosophischen Seite der Modellierung, "wo die funktionale Natur der Kybernetik am deutlichsten auftritt". (S. 93). Er kommt zu folgenden Schlüssen: (a) Subjektive Erklärungen der kybernetischen Modellierung sind nicht stichhaltig; (b) eine erfolgreiche Modellierung verlangt eine objektive Gemeinsamkeit zwischen dem modellierenden und dem modellierten Phänomen; diese darf man sich aber nicht metaphysisch als absolute Identität vorstellen; (c) die kybernetische Modellierung ist nur der erste Schritt zur Untersuchung komplizierter Systeme; ein Absolutsetzen der Methode des schwarzen Kastens führt deshalb zum Agnostizismus. Auch hier gilt die allgemeine dialektische Gesetzmäßigkeit von der Entwicklung der Erkenntnis: Sie ist eine Bewegung vom Äußeren (der Funktion) zum Inneren (der Struktur).

V. DER MENSCH UND DIE KYBERNETISCHE MASCHINE

"Der dialektische Materialismus unterstreicht die objektive Begründetheit kybernetischer Analogien und besteht gleichzeitig auf der Fehlerhaftigkeit der völligen Identifizierung von Mensch und Maschine, des menschlichen Bewußtseins und der Funktionen kybernetischer Systeme." ([9], S. 198). Novik führt nun einen Vergleich zwischen Mensch und Maschine durch, womit die "wichtigste weltanschauliche Frage, die nach der Natur des menschlichen Bewußtseins" (S. 108), angeschnitten wird.

Es gibt zwei Standpunkte: (1) den sog. algorithmischen (A. Turing [20]), der nur nach Aufgabe und Ergebnis urteilt und folglich nur Verhaltensgesetze be-

rücksichtigt. Auf die Schwächen dieses Standpunktes weist übrigens S. A. Janovskaja hin: Die Trennung zwischen Verhaltensregeln und Gesetzen sei ungenau; unter Turings Begriff der Maschine falle jedes Objekt, dessen Verhalten durch objektive Gesetzmäßigkeiten bestimmt wird; die Idee von einem Katalog von Gesetzen sei metaphysisch, denn die Erkenntnis des Menschen wachse ([20], S. 47). Die Gesetze sind bei Mensch und Maschine für Novik qualitativ verschieden, sonst könnte man nur nach quantitativen Unterschieden fragen. Auch Turing anerkennt, daß die Hauptschwierigkeiten nicht mit Ingenieurproblemen, sondern mit der Programmierung zusammenhängen. Wer annimmt, daß man Schwierigkeiten durch die Fähigkeit kybernetischer Maschinen, zu lehren und selbst zu lernen, überwindet, daß man also Maschinenkinder bauen und erziehen kann, übersieht, daß das Kind keine *tabula rasa* ist, sondern den ungeheuren Vorrat genetischer Information erbt. Lernen ist eben von bloßem Anfüllen mit Information verschieden (S. 112–115).

(2) Der andere Standpunkt sieht nach Novik die Möglichkeit zur Selbstreproduktion vor (J. v. Neumann [12]). Vorausgesetzt ist die Existenz von genügend komplizierten Systemen, worin sich das Gesetz vom dialektischen Übergang quantitativer Veränderungen in qualitative zeigt. Daß aber Selbstreproduktion unbedingt zum Bewußtsein führt, muß experimentell nachgeprüft werden, und falls sie sich der Evolution des Lebens ähnlich zeigt, so folgt nicht ohne weiteres, daß auch die Resultate identisch sind. Die Maschinenentwicklung hat den bewußten Schöpfungsakt des Menschen als Impuls, während die Evolution natürlich ohne Beteiligung irgendeiner bewußten Ursache geschah. "Offenbar muß man beim Vergleich von Mensch und Maschine von der These ausgehen, daß die bekannte Gemeinsamkeit von Mensch und Maschine mit den Mechanismen der Widerspiegelung verbunden ist, die beim Menschen und bei der Maschine stattfinden, jedoch in qualitativ verschiedenen Formen." (S. 117).

Das Wesen des Menschen hat zwei Züge: Seine soziale Natur und der aktiv-werkzeugliche Charakter seiner Tätigkeit. Gemäß dem ersten Zug "können wir den Menschen vom Standpunkt der Kybernetik als kompliziertes System bestimmen, dessen Wesen sich außerhalb dieses individuellen Systems, in objektiven gesellschaftlichen Beziehungen, ..., befindet. ...Das Wesen kybernetischer Maschinen liegt in ihnen selbst, in der Struktur ihrer Elemente,..." (S. 130, 131). Die in den kapitalistischen Ländern genährte Hoffnung, kybernetische Methoden zu schaffen, um psychologische, soziologische und ökonomische Krankheiten zu heilen, ist in den Ländern des sozialistischen Lagers schon praktisch verwirklicht (S. 132). Was den zweiten Zug betrifft, so ist der Ausdruck "Homöostasis" (das Aufrechterhalten eines stabilen Zustands eines kybernetischen Systems) auf das soziale Verhalten der Menschen schlecht anwendbar, denn der Mensch unterwirft seine Umwelt aktiv, wobei die Maschine vermittelndes Glied zwischen Mensch und Natur bleibt (S. 134–136).

Unter den Bedingungen des Kapitalismus verschärft sich nach Novik durch die Kybernetik der Konflikt zwischen Werktätigen und Eigentümern der Produktionswerkzeuge. Dies erkennt man an der zunehmenden Arbeitslosigkeit,

an der Degradierung des Arbeitsprozesses und der Persönlichkeit des Arbeiters selbst, am Zynismus westlicher Psychologen, die vom unbewußten Streben der Arbeiter nach Selbstbestrafung infolge eines Schuldgefühls gegenüber dem Herrn sprechen [9], am Kampf der Arbeiter um geringere Arbeitzeit bei gleichen Lohn, an der Planung der Staatskontrolle als Mittel zur Ausbeutung, an der Unfähigkeit bourgeoiser Ideologen, die Probleme der Automation der Produktion folgerichtig zu lösen, an der Versklavung geistiger Arbeit (S. 139–148). Dagegen zeigen alle Erfolge der sozialistischen Planökonomie, (Erhöhung der Produktion, Aufhören der Schmutzarbeit, Verlassen der Erde durch die Kosmonauten, Hebung des kulturell-technischen Niveaus der Arbeiter, Verwischung der wesentlichen Unterschiede zwischen geistiger und physischer Arbeit, Vergrößerung der Freizeit und deren Umwandlung in ein gesellschaftliches Gut) (S. 149–162), daß "unter dem Kommunismus die dialektische Einheit von Mensch und Maschine, die durch ihn immer mehr vervollkommnet wird, ihre höchste Entwicklung erreicht." (S. 162): Die Vervollkommnung kybernetischer Systeme und der Fortschritt der Menschen und der Menschheit bilden eine wechselseitige Entwicklung, worin der Mensch der bestimmende und vorauseilende Faktor ist. Ein Automat mag schneller und genauer bei bestimmten Operationen sein als der Einzelmensch, jedoch niemals klüger als die ganze Menschheit und ihre unentwegt wachsende "Arterfahrung". (ebd.).

VI. ALLGEMEIN PHILOSOPHISCHES

a. Kybernetik als Wissenschaft

Novik meint nun, seine erste Definition der Kybernetik verfeinern zu können, um die Einheit von Regelungs- und Widerspiegelungsprozessen klarer auszudrücken: "Kybernetik ist die Wissenschaft von den allgemeinen Zügen des Attributs der Widerspiegelung, die der Maschine, dem Tier und dem Menschen eigentümlich sind und den Regelungsprozessen zugrundeliegen." (S. 166, 167). Mit der Weiterentwicklung der komplizierten dynamischen Systeme wird eine besondere Klasse materieller Objekte erscheinen, die relativ selbständig sind und den Gegenstand dieser speziellen Wissenschaft darstellen. Die gegenseitige Durchdringung von Abstrakt-Formalem und Inhaltlichem in der Kybernetik ist die wichtigste Erscheinung des heute allgemein anerkannten Trends zur Synthese der Wissenschaften (S. 169). Nach Novik wird die "geniale Hypothese" vom Attribut der Widerspiegelung wegen der immer wichtiger werdenden Informationszusammenhänge zur wissenschaftlichen Tatsache (S. 198). Auch nach dem Philosophischen Wörterbuch kann man "in der modernen Lehre von der Information die Konkretisierung der Leninschen These einer aller Materie eigentümlichen Eigenschaft sehen, die der Empfindung verwandt ist, – die Eigenschaft der Widerspiegelung." (vgl. [9], S. 173).

b. Inhaltlichkeit

Novik unterstreicht besonders das Wachstum der inhaltlichen Elemente der

Kybernetik. Offenbar befürchtet er, die Darstellung der formalen könnte eine Art von Subjektivismus auslösen. Für eine inhaltliche Informationstheorie sieht er zwei Möglichkeiten: (1) Ausarbeitung einer semantischen Informationstheorie sowie einer Theorie, die den Wert von Information berücksichtigt (vgl. auch [10], S. 359, 360). (2) Die Verbindung von Informationstheorie und Physik: Er spricht sogar von "Widerspiegelungsphysik" (S. 70), wobei "in der Idee vom Zusammenhang zwischen Negentropie und Information das noch von Newton kommende fundamentale Prinzip der physikalischen Inhaltlichkeit mathematischer Modelle weiter entwickelt wird." (S. 61). Für Novik bedeutet "Inhaltlichkeit" also: "Anwendung", "Bedeutung", "Wert", dann aber auch "Struktur" und "Beziehung", z.B. die inneren Beziehungen eines Regelsystems.

c. Erkenntnis

In der Kybernetik zeigt sich der "dialektische Prozeß des Übergangs vom Nichtwissen zum Wissen, vom Wissen des weniger Tiefen zum Wissen des Tieferen" (S. 185), und so sind nach Novik Agnostizismus und Skeptizismus wieder einmal widerlegt. Außerdem liefert die Kybernetik neue Erkenntnismethoden (vgl. auch [10], S. 362) und sogar Einsichten in die Erkenntnis selbst: "Die relativ widersprüchliche Natur der Erkenntnis" "beweist" Novik mit Hilfe der Informationstheorie und des Gödelschen Theorems (S. 189); mit der entscheidenden Rolle der Praxis kommt man aber in jedem Falle zu einem Ergebnis (S. 190).

d. Einheit

"...die Betonung der Einheit einiger Seiten von Mechanismen, Organismen und der Gesellschaft, die Einheit von Regel- und Informationsprozessen, die Formulierung allgemeiner quantitativer Methoden zur Erforschung von Information und Regelung und die Anerkennung der Einheit der Wissenschaften... begründen, konkretisieren und entwickeln den dialektisch-materialistischen Monismus." (S. 173). An diesen und weiteren Beispielen sieht man die bunte Mannigfaltigkeit der Bedeutung von "Einheit" bei Novik: "Identität", "Ähnlichkeit", "Zusammenhang", "Beziehung", "Zugehörigkeit", "Gegensatz" und anderes mehr. Diese Unbestimmtheit bedingt auch ein gewisses pseudodeduktives Denken, das mehr ein Herumleiten als ein Herleiten ist: So wird die anfangs vorausgesetzte Einheit der Welt am Schluß eines Nachweises der Einheit zweier Erscheinungen ihrerseits als bewiesen angesehen.

e. Materie

Die These von der "Unerschöpflichkeit der Materie", die sich angeblich in der Mikrophysik zeigte, wird für Novik durch die "Wundereigenschaften" komplizierter dynamischer Systeme bestätigt (S. 197, 198). Bei dem Begriff "Materie" wird noch deutlicher, wie die "Unerschöpflichkeit" schnell zur "Unbestimmtheit" wird und der Begriff selbst umso mehr an Kraft verliert, je mehr man in ihm unterbringt: "...die Verallgemeinerung des Begriffes der Materie ist nicht nur mit der Aufdeckung der Bedeutung und Wesentlichkeit von Infor-

mationszusammenhängen verknüpft, wodurch die philosophische Idee von der Welt als zusammenhängendem einheitlichem Ganzen verallgemeinert wird, sondern auch damit, daß die Kategorien der Beziehung und der Struktur, hingegen nicht des stofflichen Substrats, immer mehr in den Vordergrund rücken." (S. 198).

P. Kirschenmann

ANMERKUNGEN

1. Bloße Seitenangaben beziehen sich stets auf [17].
2. I. B. Novik bezieht sich in diesem Zusammenhang stets auf [25].
3. Als einer der Autoren wird im Philosophischen Wörterbuch I. B. Novik genannt. Ob er den genannten Artikel verfaßt hat, entgeht jedoch meiner Kenntnis.
4. Für beide liegen bis aufs Vorzeichen gleiche Ausdrücke vor.
5. Als Rauschen werden in der Nachrichtentechnik die infolge de thermodynamisch-statistischen Schwankungserscheinungen auftretenden Störungen bezeichnet.
6. Wahrscheinlich denkt Ukraincev dabei besonders an seine eigene Veröffentlichung 'Über die Möglichkeiten der Kybernetik im Licht der Abbildungseigenschaften der Materie' [22]. Es handelt sich offensichtlich um einen Prioritätsstreit.
7. Negentropie ist dadurch definiert, daß Änderungen der Negentropie gleich Änderungen der Entropie mit negativem Vorzeichen sind.
8. So auch Ukraincev [24], S. 164.
9. Gerade an dieser Stelle wäre ein soziologischer Vergleich mit dem Kommunismus interessant.

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Nachtrag

Hinweis: Das vollständige Material der Konferenz über philosophische Probleme der Kybernetik vom 1. und 2. Juni in Moskau wird in Kürze auch zugänglich werden: *Kibernetika, myšlenie, zizn'*. Moskva. 4. Quartal 1964.
Zusammenfassende Artikel über diese Konferenz:

Majzel', N. I., Fatkin, L. V.: 'Konferencija po filosofskim problemam kibernetiki'. *VP* 1962, 5, 184–189 (Übersetzt in *Ost-Probleme* 1963, 2, 43–48).
Birjukov, B. V.: 'Konferencija po filosofskim problemam kibernetiki.' *VF* 1962, 11, 146–153.

SOVIET PUBLICATIONS ON CYBERNETICS

Although several general bibliographies of Soviet publications on cybernetics exist (*e.g.*, C-1 to C-6 below), they are primarily concerned with automation and engineering cybernetics. The only Soviet bibliography oriented towards the philosophical problems of cybernetics (C-7) is incomplete and does not include any publications from the last three years. Therefore, I thought the present bibliography might prove to be useful.

The bibliography is a by-product of a monograph which I am writing on the philosophical implications of Soviet work in cybernetics, and therefore it tends to reflect my particular interpretation of what these implications are. My primary interests are in the *psycho-physical* problem, and the *sociological* implications of cybernetics.

Cast in a popularized form, the questions implicit in the psycho-physical problem might include the following. How much can we learn about the human brain and its processes from studying cybernetic models and *vice versa*? What light does cybernetics shed on human psychic phenomena, including mental disorders? What are the epistemological implications of perceptrons and similar cybernetic devices? Do machines really 'think'? If so, could *all* human thinking activity, including creative and emotional thinking, theoretically be modelled by a sufficiently sophisticated cybernetic machine, or are there specifically human types of thinking which no machine could ever duplicate? Can cybernetic machines ever reach a level of self-programming and creative thought that would make them masters of their human operators?

The sociological implications include such questions as: To what extent is human social planning replaceable by automata? Would a society of 'governing machines' be a blessing or a disaster? For an authoritarian sociological structure, what are the ideological implications of the feedback principle?

I do not claim that the Soviet writers on cybernetics have necessarily given clear-cut answers to these questions. Much of the published discussion is cautious and only deals with these philosophical questions parenthetically. This partially accounts for the length of my bibliography. I have included a variety of articles from medical, psychiatric, electronic and economic journals when they dealt with the philosophical problems mentioned above. I have also included a number of articles from popular journals such as *Priroda*, *Nauka i Žizn'*, *Znanie-Sila* and *Texnika Molodëži*, because readers who are not familiar with the basic concepts and theories of cybernetics may want to begin with more elementary expositions. These popular articles are written by professional scientists and tend to be more speculative than articles in the professional journals written by the same authors. I have listed both book reviews and Russian forewords to translations of Western books, since these give an invaluable insight into the Soviet attitudes towards certain developments in cybernetics in the West. I have included very few newspaper articles because on the whole

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they tend to be highly redundant résumés of works found in the popular and professional journals.

I have not included in the bibliography any of the following: technical works on switching circuit design; works on teaching machines and programmed learning; works on automation and industrial production; works on non-physiological medical applications of cybernetics. These can readily be found in the bibliographies C-1 through C-6, or by reading the various monthly *Referativnye Žurnaly*, some of which are available in translation from OTS (see Dr. Kerschner's introduction, p. 162). For readers who want to keep up on current Soviet publications after this bibliography appears, the best single source is the *Referativnyj Žurnal – Matematika* (Journal of Abstracts – Mathematics) in the section under 'Kibernetika – obščie voprosy' (Cybernetics – General Problems). I used the 1963 issues as a checklist for the last year and found that they contained about 75% of the materials I had listed.

Cybernetics is virtually the only topic within the interests of *Studies in Soviet Thought* which has received anything like a systematic translation coverage into English. The United States government has sponsored the translation of many Soviet publications on cybernetics, a fact which was brought to my attention by Prof. Kerschner. I am very grateful to him for having prepared a bibliography of these translations which is coordinated with my bibliography in the following way: when a Western-language translation exists of a Soviet publication listed in my bibliography, at the end of my citation I have placed in square brackets (*e.g.* [K-125]) the number of the corresponding translation in the Kerschner bibliography. Likewise, the bracketed numbers (*e.g.* [C-187]) at the end of each of the Kerschner citations refer to the Russian originals in the Comey bibliography.

The transliteration system used in the Kerschner bibliography is that of the U.S. Library of Congress, since that is the system used by the agencies from whom the translations are available; my bibliography uses the *SST* system, and conversion into or from the Library of Congress system can be made by using the transliteration table printed on the inside back cover of this journal. In addition to the abbreviations which are listed under the transliteration table, I have utilized the following *ad hoc* abbreviations:

K *Kommunist* (Communist)
L. Leningrad
M. Moscow
NŽ *Nauka i žizn'* (Science and Life)
P *Priroda* (Nature)
p., pp. page, pages
Red. *redaktor* (editor)
Sost. *sostavitel'nica(i)* (compiler(s))
Sp. *sbornik perevodov* (collection of translations)
Ss. *sbornik statej* (collection of articles)
SSR. *Sovetskaja Socialističeskaja Respublika* (Soviet Socialist Republic)

str. *stranica* (*i*) (pages)
t. *tom* (volume)
TM *Texnika molodëži* (Technology for Youth)
Tr. translation
V *Vestnik* (Review)
vyp. *vypusk* (issue)
ZS *Znanie-Sila* (Knowledge is Power)

The usual form of citation is as follows: *VF* 1962, 12, 108–115 means that the article cited is found on pages 108–115 of issue number 12 for 1962 of *Voprosy filosofii*. Note that the number following the year is always the *issue* number *within* that year, and *not* the volume number. The latter, if given, is always preceded by 't' (for *tom*).

Two special notes: (1) The *V LGU* has 24 issues per year and is divided into 6 subseries. Since binding and cataloging practices vary from library to library, it may be useful to note that since 1956 the issues number 5, 11, 17, 23 of the main series of the *V LGU* are *vypuski* 1, 2, 3, 4 respectively of the journal's subseries '*Ékonomiki, filosofii i prava*'. (2) Those pamphlets which I have listed as being published by the *Izdatel'stvo* '*Znanie*' are put out by the *Vsesojuznoe obščestvo po rasprostraneniju političeskix i naučnyx znanij RSFSR* (All-Union Society for the Dissemination of Political and Scientific Knowledge) and in most American libraries are catalogued *only* under the '*Vsesojuznoe*....etc.' entry. Pamphlets in this series which are published in Leningrad will be found under the secondary sub-entry '*Leningradskoe otdelenie*' (Leningrad Branch). Issues since 1961 are sometimes catalogued in subseries under the master entry '*Novoe v žizni, nauke i texnike*' (New in Life, Science and Technology).

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WESTERN TRANSLATIONS OF SOVIET PUBLICATIONS ON CYBERNETICS

The need for a selected bibliography on Soviet cybernetics and the criteria by which the materials have been chosen has previously been outlined by David D. Comey. This bibliography is composed primarily of the available translations of the items cited by him. However, it also includes some additional materials i.e.; translations of items in non-Russian languages, primarily from Ukrainian and Polish sources, and a list of original works by East German writers. The purpose of the bibliography is to give the non-Russian reader access to this new and increasingly important aspect of Soviet thought. Although painfully aware of the dangers and pitfalls of translations, the author is convinced that more general Western familiarity with the material is of more fundamental importance than a doctrinaire insistence on purity.

The vast bulk of the material has been translated by the United States Joint Publications Research Service (JPRS) for the use of a number of U. S. Government Agencies. The materials are made available to the public through either the Office of Technical Services (OTS) of the U. S. Department of Commerce, or the Photo-Duplication Service of the U. S. Library of Congress. The quality of the translations varies tremendously. The transliteration format utilized is essentially the Library of Congress system. However, this is also quite erratic and great care must be exercised, particularly with names. In order to facilitate use of the bibliography, in cases where an improper transliteration has been used, the JPRS form is given first; followed by the proper Library of Congress form, e.g. Braynes, S. N. (Braines, S. N.). A number of the items are also available from the Institut für Dokumentation, Deutsche Akademie der Wissenschaften zu Berlin.

The materials are listed alphabetically. Where there is more than one work by the same author they are listed chronologically. If more than one translation is available, the more recent and/or English language translation is cited first. The items are internally cross referenced to major collections, *e.g.* ANOKHIN, P. K.: 'Physiology and Cybernetics'. In K-150. [C-37]. The C-37 refers to the original Russian language article listed as item 37 in the Comey bibliography.

The materials can most easily be purchased as follows. Items marked with an OTS number can be ordered directly from the Sales Department, Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C. The cost of the items varies considerably. Newly released materials, in mimeographed form, are relatively inexpensive. Supplies are, however, usually quickly exhausted and then micro-film, photo-copy, or xerox are available. The microfilm is also quite inexpensive, but the photo-copy or xerox cost approximately 10 cents per page. It is strongly recommended that anyone considering extensive purchases establish a deposit account with the U. S. Government Printing Office. Such accounts can be established with a minimum deposit of $25.00 and enable one to order from OTS without first receiving a price quotation – a saving of

several weeks. Promptness is not an attribute of the OTS sales division and at least one month should be allowed for delivery.

Items carrying either a JPRS or an OTS number may be ordered from the Photo-Duplication Service, U. S. Library of Congress, Washington 25, D. C. The deposit account of the U. S. Government Printing Office is not acceptable at the Library of Congress and since they insist upon pre-payment, establishing a deposit account there is equally advisable.

The items translated by the East Germans are available from Institut für Dokumentation, Übersetzungsnachweis, Deutsche Akademie der Wissenschaften zu Berlin, Unter den Linden 8, Berlin W 8. Payment arrangements, usually credited to a library account abroad, must be arranged separately in each instance.

For those who may wish to maintain a current bibliography, the following sources are recommended. *Technical Translations*, published bi-monthly by OTS at a subscription rate of $12.00 per year, lists all the translations available from OTS. It includes items translated by non-governmental agencies and acts as a type of clearing house for technical translations. Unfortunately, as of January 1, 1964, *Technical Translations* is subject indexed only on a quarterly basis which makes it somewhat less convenient to use. Many of the more narrowly philosophical and social science articles are not listed in *Technical Translations*. They are usually to be found in the Monthly Catalog of U. S. Government Publications published by the U. S. Government Printing Office. This, however, is also not a definitive list and thus both sources must be consulted. In addition, the citations in the Monthly Catalog are quite skimpy and often are not sufficient to properly identify or classify the article. Nor is it all inclusive; a private research firm, Research Microfilms claims that in the period 1957–1961, there were 15000 items translated of which only 10000 were cited in the Monthly Catalog. This firm located at P.O. Box 267 Annapolis, Maryland, U.S.A. has published a two volume card catalog of JPRS translations. It is complete from 1957 to 1961 with work being done to bring it current.

A guide to the East German translations is available in Institut für Dokumentation der Wissenschaften: *Bibliographie der Deutschen Übersetzungen: Aus der Sprachen der Völker des Sowjetunion und der Länder der Volksdemokratie.* Abteilung I. Wissenschaftliche Literatur. Jan., 1952 – (monthly). The Institut für Dokumentation will also, upon request, provide a list of available translations. They are quite cooperative in this regard and the fee is quite small.

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REPORT FROM THE INSTITUTE

Appointments. The following appointments have been made: Ivar Nyman, Ph.D., Assistant; Robin Kemball, Ph.D.; Assistant, Wolfhart v. Böselager, Junior Assistant.

Lectures. In addition to those announced in *SST* 1963 (4), 338, the following courses were also given: Professor Constantin Regamey: Russian Literature; Professor Alphons Bronarski: Polish Language and Polish Literature; Professor Raymund Erni: Selected Problems of Orthodox Theology.

Visitors. Professor Günther Ludwig, director of the Institute for Theoretical Physics at the University of Marburg, was Visiting Professor at the Institute during the months of January and February and lectured to those following Programme P (Soviet Physics). Professor Nicolas Lobkowicz (University of Notre Dame) made a short visit to the Institute on January 25th, 1964.

Students. 42 students registered at the Institute in the Winter Semester 1963–1964.

Conferences. Prof. J. Bocheński, Prof. S. Müller-Marcus and T. R. Payne represented the Institute at the Conference on Marxism-Leninism, held on April 9–10, 1964 in the Institute of East-European Studies of the Free University of Berlin.

Work in Progress. The following books are already with the publisher: K. Ballestrem: *A Glossary of Russian Philosophical Terms;* S. Müller-Marcus: *Einstein und die Sowjetphilosophie*, vol. II. An English translation of H. Fleischer: *Kleines Textbuch der Sowjetideologie* is being prepared. The fifth issue of the *Bibliographie der sowjetischen Philosophie*, containing a subject-index to the whole work, and an English translation of two papers by B.V. Birjukov are forthcoming.

Publications. A. A. Zinov'ev: *Philosophical Problems of Many-Valued Logic*, translated by D. D. Comey and G. Küng, and an English translation of J. Bocheński: *Soviet Russian Dialectical Materialism* have recently been published.

CONTENTS

J. M. Bocheński / Toward a Systematic Logic of Communist Ideology

R. De George / Soviet Ethics and Soviet Society

E. Laszlo / A Survey of Recent Trends in Marxist-Leninist Aesthetics

T. J. Blakeley / Terminology in Soviet Epistemology

Notes and Comments

Hungarian Comments on Laszlo's Aesthetics – Fresh Data on the 'Lukács Problem' – Eine Rede Bohrs in Dubna – Würdigung Friedmans – Philosophische Veröffentlichungen 1964 – Critics of Bourgeois Philosophy – From Western Literature

Reviews

K. Kosík: Dialektika konkretního. Studie o problematice člověca a světa (N. Lobkowicz)
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TOWARD A SYSTEMATIC LOGIC OF COMMUNIST IDEOLOGY*

The present study is concerned with logical analysis of ideology as exemplified by Communist ideology and, more specifically, by Soviet Communist ideology.

There have been relatively many good studies about ideology by sociologists and philosophers, but few attempts to analyse its logical aspect, i.e. the most general structure, have been made, as far as the author knows.[1] This is partly due to the fact that logic has been, in general, seldom applied to fields similar to ideology: and partly it is the result of the fact that very few logicians are Sovietologists, most of the latter being political scientists, historians or sociologists. Also, there is a wide-spread lack of interest for purely structural problems in social sciences.

However, logical analysis is not irrelevant to empirical studies in Communism. It can, if successfully done, supply the general frame in which further, more material research has to be operated. It also helps to elucidate *a priori* the various possible solutions to problems which may occur in empirical studies.

While the main aim of the author was to clarify some logical aspects of Soviet ideology and its relations to philosophy and science, it has been thought that such an analysis may also be useful for general purposes, namely for the clarification of the much discussed and seldom understood general problems of *Weltanschauung*, religion, ideology, etc.

1. THE PROBLEMS

1.1. *Basic notions*

Communist discourse (CD) has both a non-propositional and a propositional part. The former is a class of imperatives, valuations etc; the latter contains (indicative) sentences as elements. A subclass of that propositional part of CD has as elements *accepted* sentences. This class

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obviously differs with each Communist. However, there seems to exist a non-empty product of such classes. That product we shall call "the Communist Total Discourse" (abridged as "CTD").

It is a generally accepted doctrine that CTD itself can be sub-divided into two sub-classes, the ideological and the non-ideological, which will be referred to here by "ID" and "PD", respectively.

1.2. *Main logical problems*

The following seem to be the main logical problems of the CTD;

(1) Definitorial problems; how are ID and PD to be defined?

(2) Internal structural problems, both for ID and PD. The questions to be answered here are: what are the basic principles of each discourse, how are they applied, and so on:

(3) External structural problems namely, those concerned with the CTD as a whole, i.e. with the relations between ID and PD;

(4) Problems of justification of ID: how is the acceptance of ID logically justified?

1.3. *Other problems*

All problems named in 1.2 are syntactic. There are, however, also questions which lie on another level, namely, among others, pragmatic, and dynamic problems:

(1) pragmatic problems, related to the *use* of CTD by men;

(2) dynamic problems concerning the changes in ID and in the CTD as a whole.

Such problems have to be studied above all by historiographers of ideas and by sociologists. It must be remarked, however, that some clarification of the analytic problems enumerated in 1.2 is presupposed in the work concerning those problems. E.g., in order to know what is the relation of a certain man or group of men to the given discourse, how they are using it, etc., one must have at least some idea about the structure of the discourse concerned. Also, to know whether and in how far ID has developed, it is necessary to know, first of all, what it was at a certain time and what it has become; but this presupposes its logical analysis.

This does not mean that the use of historical and sociological method might not be helpful in performing the analytical task. The analysis is, indeed, an analysis of concrete empirical material which has been ob-

tained by historical studies; moreover the labour of sociologists, in so far as they keep to observation, may be relevant for this task. But, still, logical analysis is presupposed in practically all explanatory work in the field of the other problems.

2. Definitorial problems

2.1. *Current definitions*

As already stated it is generally admitted that CTD contains both an ID and a PD. These sub-classes are often characterized in the following way;

(1) ID and PD are mutually exclusive;

(2) ID is the class of such sentences which are imposed by the Party for political reasons and are therefore accepted by philosophers *only* because they are compelled to do so;

(3) PD is a class of sentences exclusively drawn from sciences, above all from natural sciences.

2.2. *Criticism of the current definitions*

This sort of characterization seems, however, to be of limited usefulness for the sake of analysis of CTD. There are at least two reasons which suggest that both the division and the characterization of the sub-classes of CTD are inadequate.

2.21. The doctrine leaves no place for properly philosophical views. There are such, e.g., among the Soviet philosophers thinkers who incline to a more materialistic and others who prefer a more spiritualistic view of man.[2] Now none of those trends may be said to be "scientific" in the current meaning of the word. It seems to follow, that there is a class of sentences in CTD which do not fall either in ID nor in PD as defined above.

2.22. The above definition of ID seems, on the other hand, to be too narrow. If there certainly are in ID sentences imposed in the way stated in 2.1 (2) and felt by the philosophers as such, it is equally certain that a number of ideological sentences are accepted by them willingly, without any compulsion.

For these reasons it seems preferable to use another division and different definitions.

2.3. *The four subclasses in CTD*

It is suggested that the CTD may be more usefully subdivided into four subclasses which we shall describe as follows;

2.31. *Weltanschauung* – abridged as "WE" – a class of sentences accepted by Communists without any pressure by the Party, as basic elements of their view of the world.

2.32. *Political ideology* (PO) – a class of sentences accepted by the philosophers *only* because the Party asks for it and imposes them.

2.33. *Philosophy* (PH) – a class of sentences accepted by philosophers neither for ideological reasons (be they of the 2.31 or 2.32 kind), nor because they are scientific sentences, but as based on a philosophical insight.

2.34. *Science* (SC) – the class of properly scientific sentences.

The difference between Weltanschauung and political ideology is quite obvious to any observer of the behaviour of Soviet philosophers, especially since 1947. Perhaps the absurdity of the non-recognition of this difference will help best to understand it. Whenever a Soviet philosopher shows in any way his disagreement with some doctrine which has been held in the name of the Party, some Western writers jump to the conclusion that the philosopher in question has ceased to be a Communist. But this is, surely, a preposterous conclusion. One instance which contradicts it, is the attitude of the group of philosophers around Kedrov, Kamenskij and others in the campaign against the (party-sponsored) Russian chauvinism in 1948.[3] Another is the struggle by the Morganists against the Lysenko line.[4] In both cases it seems quite certain that the philosophers or scientists named, while objecting very strongly against some politically motivated doctrines of the Party – so strongly indeed that they risked their existence and sometimes even their lives, as in the case of Vavilov – remained good and devout Communists. The last expression can be, however, best defined as the allegiance to a class of sentences *different* from the set they combatted, i.e. by supposing our distinction of *Weltanschauung* and political ideology.

The terms used here are somewhat misleading. All of the ID is in one way – because of the doctrine of the unity of theory and practice – a political doctrine. But, still, there are manifest differences between, say, atheism (which might even be politically rather undesirable) and, e.g., the Lysenko theories. While considering the behaviour of Soviet phi-

losophers one gets the certainty that the weight of the elements of the two classes is quite different with them and that they must be distinguished for the sake of analysis of the situation.

The difference between the two last sub-classes is easy to establish. We have already quoted one instance, that of materialism versus spiritualism in recent Soviet psychology. Another instance is that of the discussion on categories, where different standpoints (a more Aristotelian and a more Hegelian) were voiced.[5] Such sentences can be neither derived from WE nor from SC; neither were they prescribed at any time by the Party and do not belong, consequently, to PO. It is necessary to consider them as a separate class.

2.4. *Combinatorial analysis*

According to the above suggestion the situation in CTD, as it is now in the SU, may be characterized by the presence of all four subclasses of the discourse. Many people, both among the Soviet philosophers and abroad, would consider a simplification of that situation as desirable. The question arises in how many ways this might be done; and the answer is supplied by combinatorics: there are 15 different possible simplifications of the actual position (16 with this situation itself):

1 WE PO PH SC	5 WE – PH SC	9 – PO PH SC	13 – – PH SC
2 WE PO PH –	6 WE – PH –	10 – PO PH –	14 – – PH –
3 WE PO – SC	7 WE – – SC	11 – PO – SC	15 – – – SC
4 WE PO – –	8 WE – – –	12 – PO – –	16 – – – – –

Among them the following merit to be mentioned:

(3) Moderate party-positivism recognizing alongside with WE and PO only science but not philosophy.

(5) A position which might be that of most thinking Soviet philosophers: they would like to drop PO completely, but hold up the three remaining classes of sentences.

(7) Extreme ideological positivism combining the WE with SC, and dropping both PO and PH.

(11) Cynical party positivism; no WE, no PH, just PO plus SC.

(13) radically anti-ideological position, upheld, as it seems, by many Western philosophers as desirable: no ideology at all, but philosophy and science.

(15) Pure positivism; no ideology and no philosophy, just positive science.

These admittedly trivial remarks seem to help understanding that many if not most of the Western discussions about Soviet ideology and its relations to philosophy were helplessly muddled because of lack of insight into the combinatorial situation.

2.5. *Combination Nr. 5 assumed*

As already suggested, the normal case with a thinking Soviet philosopher seems to be represented by the combination Nr. 5: he accepts the communist *Weltanschauung*, some philosophical principles and the results of sciences (WE, PH and SC). He must, of course, also submit to the Party which requires him to accept political ideology (PO). But, while paying lip-service to such doctrines, he will not consider them as valid elements of his system and will therefore have no particular logical problems as far as they are concerned.

This assumption is thought to be highly probable; it is, in fact, well substantiated by what we know about many Soviet philosophers. It functions here, however, as an assumption only, without which some of the development below would be meaningless. E.g. if a Soviet philosopher would be a pure positivist, he would, of course, have practical problems as to how to behave and write in order to avoid uncomfortable consequences, but his theoretical problems would be exactly the same as those of any other positivistic thinker. Similarly, a Soviet philosopher who would accept the position Nr. 13 (Philosophy and Science only) would meet only with problems occurring to every philosopher with similar philosophical views. But if the combination Nr. 5 (*Weltanschauung*, Philosophy and Science) is assumed, then some peculiar logical problems arise which merit to be discussed.

2.6. *Soviet views of the logical situation*

The classification proposed above will only partly be admitted by most Soviet philosophers. There is, it is true, a certain trend toward the recognition of a difference between philosophy and science.[6] But even this is not quite explicit and clear – probably because of the positivist elements present in the writings of Engels and Lenin. Certainly there is no public recognition of the difference between the *Weltanschauung* and political

doctrines – except in so far as the bad period of the "cult of personality" is concerned. In regard to the present period a Soviet philosopher is not allowed to express any doubt about the "monolithic" coherence of everything that the party professes. It seems, however, that privately many Soviet philosophers may very much doubt that monolithic character, i.e. that they do draw a distinction between *Weltanschauung* and political doctrines.

On the other hand, what none of them would accept (and this, it seems, because of their intimate conviction) is the basic difference between ideological and non-ideological sentences, as to their nature. They will of course have a special chapter, say, in their bibliographies, for Marxism-Leninism, i.e. for ideology, and for various special sciences or even philosophy. But they would say that ideology is nothing else than the set of the most general scientific doctrines, derived from experience by exactly the same methods as used in non-ideological discourse. This appears, e.g., in a most explicit way in the attempts of Kedrov to offer a general classification of sciences.[7]

The correctness of such views is a problem to be examined in connection with the question of the justification of the different sub-classes of the CTD. For the difference, if any, is surely one of the ways in which such sentences are logically justified. We may postpone it now, as for the moment it will be enough to state that the official Soviet view is quite obviously wrong and has been shown to be so, e.g. by Blakeley.

3. Internal structural problems

3.1. *Basic assumptions*

A thinking man feels the need, especially when he is a philosopher, for a logical ordering of the class of sentences he accepts as valid. The extreme case of such ordering which appears as being the implicit ideal of all ordering, is the full axiomatization, according to the doctrine of the *Posterior Analytics* as developed in the *Begriffsschrift* and as exemplified in modern logical systems. It is certainly not the case that every man has such a system for his *Weltanschauung*. But an examination of the perfect axiomatic theories allows one to see what are the basic elements which must be present in any ordered view, be it implicitly (as is mostly the case) or explicitly. Those basic elements are, roughly speaking three: the objective content, the heuristic rule and the basic assumption.

3.11. *The objective content* is the class of object-linguistic sentences accepted as valid in the given field. In physics this is the complete set of physicalist sentences, both experimental and theoretical which constitute the "state of science" during a given time-slab.

3.12. *The heuristic rules* are meta-linguistic rules which determine which sentence does and which does not belong to the said objective content. In physics the set of such rules contains, on the one hand, some rules concerning the establishment of protocol sentences, and on the other hand, a number of rules of derivation by which explanatory sentences are obtained.

3.13. *The basic assumption* is a meta-linguistic rule according to which every sentence belonging to the objective content is to be accepted. It does not necessarily say that it has to be accepted as true; but, at least it postulates that it be *accepted* as a sufficient basis for action. The basic assumption is practically always implicit and is even often hardly noticed. But it should be obvious that it is present and that, moreover, it is the fundamental element of the system.

An important remark should be added: the above ordering is *not* identical with the explicit axiomatization which may be operated later on. The latter is concerned exclusively with the objective content and does not contain in any way some of the other elements.

3.2. *The logical structure of WE*

It seems that all the above elements are present in the Communist *Weltanschauung*.

3.21. *The objective content.* As a fact, there is a set of sentences which are distinctively accepted as belonging to the *Weltanschauung*. They are professed as being absolutely true and practically no doubt whatsoever is known as far as they are concerned – i.e., when doubts occur about such sentences, they are said to be "revisionist". One example is atheism; another is the sentence "Communism will win"; a third is "there is class-struggle in every class-society". The number of such obviously *weltanschauliche* sentences is perhaps not very large, but their presence is certain.

3.22. *The heuristic rules.* What the heuristic rules are is a more difficult problem. There is in regard to these rules a striking similarity between Communism and highly-organized religions, for Communists seem to use

two rules, as such religions do: the scripturistic and the authority rule.

3.221. The scripturistic rule: whatever is clearly and certainly taught by the classics as belonging to the WE is an element of it.

3.222. The authority-rule: whatever is taught by the Party to belong to WE does belong to it and in the interpretation supplied by the Party.

The application of such rules offers, of course, a number of problems of interpretation and consistency which may be very serious indeed; but the mere *fact* that Communists do constantly use such rules in order to establish the content of their WE seems to be certain.[8]

3.23. *The basic assumption.* This is: whatever belongs to WE is to be accepted as true. A mere acceptance does not seem to be sufficient; the recognition of those sentences as true, and even as it is said by Communists, as "absolutely true" is required. We are *not* dealing here, as yet, with the problem of how such an assumption is justified: we are just stating that it is present.

3.3. *Derived sentences*

Alongside the above sketched structure of WE there is also another set of problems resulting from the fact that there may be (and that there actually are) some sentences which while not being elements of the objective content of WE, are derived from them. They form a separate class and their logical situation offers a number of problems which seem to have been never examined as yet.

One such problem is: in how far can such derived sentences become elements of the WE? This can be also formulated in the following way: assuming that the elements of WE enjoy the highest probability (as a matter of fact, they are "absolute truths"), what is the degree of probability of such derived sentences?

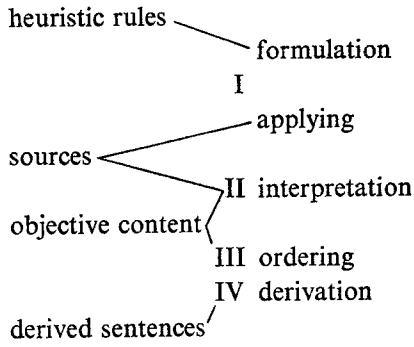
Another is the question: what sort of logic must be used in order to derive such sentences? Would the classical bi-valent logic do, or is it necessary (as it is in religion) to use some multi-valent logic?

As far as the attitude of the Party is concerned, it seems that derived sentences are not considered as elements of WE; but it seems that during different periods of its existence the CP did prescribe such sentences to the faithful. They then become elements of the PO, sentences imposed by political power.

3.4. *On rational tasks for Communist philosophers inside WE*

The logical situation being as described above, there are several tasks which a Communist philosopher may accomplish without passing over to PO, by logical analysis of his ideology alone. They are the following: first he may formulate more precisely his heuristic rules. Then he will apply them to the sources, namely to the statements of the classics and of the Party; in order to do so, he will need an amount of interpretation of those statements; only this will yield the elements of the objective contents. Those elements will have to be ordered, with axiomatization as an ideal, and from them new sentences may be derived.

The process may be represented by the following scheme:



It appears, consequently, that there are four different rational tasks for a Communist philosopher in as far as internal problems of his ideology are concerned: the meta-ideological task, consisting in the formulation of his basic rules; the positive task, namely, the analysis of sources; the strictly ideological task (corresponding to that of a systematic theology), this being itself a double one: the task of ordering the objective content and of deriving from it new sentences.

3.5. *Misunderstandings and moral valuations*

There is often among the Western students of Communism a double tendency in regard to the above tasks of Communist philosophers. On one side, they are regarded as purely irrational, ideology being identified with a blind submission to the decrees of the party, without any use of reason. This stems, partly at least, from a confusion between our WE and PO, *Weltanschauung* and political doctrines, partly because the said

authors do not have sufficient logical training to understand that an assumption being seriously made, there can always be some rational tasks to be performed.

Moreover, there is a widespread tendency to valuate negatively all efforts of Soviet philosophers concerning the tasks mentioned above. They are said to be not only irrational but somewhat immoral. The reason seems to be the same as mentioned above: the confusion of the two quite different classes of ideological sentences and the inability to think logically. These authors seem to reason in the following way: whoever tries to work out a view which is not mine, is a bad and stupid fellow. This is an assumption which must appear not only untrue but even ludicrously untrue to every mind trained in logic and in history of ideas.

A more moderate view is sometimes formulated in the following way: while not denying the intellectual honesty of some Communist philosophers, it is said that they are wasting their time and working in a field which cannot offer anything of value. But even such judgement is by far unwarranted. *Ex falso sequitur quodlibet* – from false premisses anything may follow, and the history of ideas teaches us, that sometimes valuable philosophical results came out by working inside assumptions which we hold to be obviously wrong.

As far as Soviet philosophers are concerned, they are often guilty of another misunderstanding: they do not recognize the specific characteristics of their ideology and go on asserting, against evidence, that they are working with exactly the same assumptions as the scientists. This is, of course, so untrue, that sometimes a moral question may be raised as to the behaviour of the men concerned. A philosopher can legitimately ask how it is possible that thinking men pretend their ideology to be science. That is a relevant question. But once the ideological character of WE is recognized, other moral doubts seem to be quite unwarranted.

4. External structural problems

4.1. *General characteristics of CTD*

As compared with any non-ideological discourse, the CTD has two characteristics: it is stronger and more complex. First, it is *stronger*: while it is often claimed that CTD contains the whole discourse of phi-

losophy and science, the inverse is certainly not true: there are sentences which belong to the CTD but not to philosophy or to science. Therefore the CTD can allow consequences to be drawn which are not obtainable from the non-ideological discourse alone.

Second, the structure of CTD is *more complicated* than that of any non-ideological discourse. It contains at least two – and, as we have seen, up to four – different classes of accepted sentences. Because of the existence of such a multiplicity of sub-classes in it, the CTD offers a number of logical problems unknown in non-ideological discourse. We term such problems "external", because they are external to each of the said sub-classes – in particular to WE alone. They are problems of inter-relation of these sub-classes.

4.2. *Survey of the inter-relations*

If we assume that there are four sub-classes in CTD, namely WE, PO, PH and SC (as in the combination 1 above), a tetradic relation results. Such a relation gives rise to not less than six partial binary relations, namely in our case;

1 WE–PO
2 WE–PH
3 WE–SC
4 PO–PH
5 PO–SC
6 PH–SC

Even if we reduce the number of sub-classes to three (as in the combination 5) we still obtain a ternary relation which gives rise to three partial binary relations;

2 WE–PH
3 WE–SC
6 PH–SC.

Limiting ourselves to the last list, we find the following situation. The relation PH–SC is the quite classical one and gives rise to exactly the same problems as in non-Communist discourse. On the other hand, both WE–PH and WE–SC are specific relations, which do not exist in a non-ideological discourse.

4.3. *Main problems*

In regard to such couples of classes we shall have first the quite normal problems which rise whenever two classes are present. According to a trivial theorem of pure logic, two classes give rise to not less than eight new classes. Let the classes concerned be WE and PH; we have then the following:

1	WE ∩	PH	5	WE ∪	PH
2	WE ∩	− PH	6	WE ∪	− PH
3	− WE ∩	PH	7	− WE ∪	PH
4	− WE ∩	− PH	8	− WE ∪	− PH

The first group of problems arising here is that of the empty or non-empty character of those eight classes. If it is assumed that both WE and PH are non-empty, then 5, 6 and 7 are non-empty either. But other cases may be problematic. E.g., is the class 1 (WE ∩ PH) empty or non-empty, i.e. are there sentences which belong at the same time to the *Weltanschauung* and to philosophy?

Another set of problems is that of consistency. A Communist must look for consistency not only inside the WE but also inside the CTD as a whole. While doing it he is likely to meet contradictions, as is usual when we have to deal with two sets of sentences of different origin. The question of consistency even seems to be the central one in our field.

4.4. *The logical situation in case of inconsistency*

We shall examine now the logical situation in which a thinking Communist finds himself when inconsistencies arise between WE and PH, or WE and SC, i.e. between what is often termed "ideology" and what is called "science". He has two sets of sentences, WE and PH; he accepts both as true: but he finds that there is an element of WE, say Q which is inconsistent with an element of PH, say R. He has therefore an inconsistency in the CTD, or, to put it quite bluntly (because this is most often the case) he seems to be forced to accept at the same time a sentence and its negation. How should he deal with that situation?

One possible answer is that he should accept the contradiction. This might be, indeed, suggested by the Communist doctrine of contradictions (for sentences are taken to be "copies, photographs" of states of affairs in the world[9], consequently, if there are contradictions in those states of

affairs[10], there can and should be such between the sentences). But Communists are – fortunately – unanimous in rejecting that solution. They adhere to the opinion that there should be no contradictions in the CTD.[11]

In that case the Communist is logically bound to reject one of the contradictory sentences while accepting the other. That is the minimum requirement; a more radical solution consists in rejecting both of them.

The situation seems to be uncomfortable enough. However, the analysis of it shows that some conditions must be satisfied in order that the contradiction be a relevant one. There are, above all, three:

(1) That Q is an element of WE;

(2) That R is an element of PH;

(3) That Q is the negation of R, or inversely, or that there are a couple of sentences S and T such that Q entails S and R entails T and: S is the negation of T or inversely.

It follows, that a Communist faced with what he thinks to be an inconsistency in CTD of the sort described above, has to examine whether the three conditions mentioned here are satisfied.

The result of that examination may be either the insight that Q or R are not elements of their respective classes, or a reformulation of one or the other in such a way that they do not give greater rise to a contradiction. And that is what the Communist philosophers – or at least the better among them – are constantly doing. Moreover they seem to do it with a relative success.

4.5. *Historical remarks*

If we look at the history of such efforts in regard to WE–SC, we find that the general trend among Communists is toward a reformulation of WE such that the contradictions become more and more impossible. This happens because the re-formulated elements of WE tend to fall increasingly into two classes (1) *metaphysical* statements which cannot have any scientifically verifiable consequences (like atheism), (2) *valuations*, with no theoretical content at all. This is how it becomes possible to avoid contradictions between ideology and science. The process is by no means concluded and the often Homeric fights around such departments of science like general relativity[12] or microphysics[13] show that in the present state of CTD contradictions are possible and do really occur.

In philosophy, however, the situation seems to be somewhat different, at least if we do not define philosophy in a positivistic way. For such a philosophy does not necessarily assume the criterion of sensual verification; moreover, it usually contains also a set of value-sentences. None of the devices used in order to avoid contradictions between ideology and science can be of much use here.

What seems to happen sometimes, therefore, is a sort of "*softening*" of the elements of *WE* in such a way that contradictions with the elements of PH might be avoided, at least to a certain degree. One classical example is the so-called *law of universal connection.* As formulated once[14] it entailed a rigid determinism which apparently gave rise to contradictions both internal to WE and with many philosophical insights gained by Soviet philosophers. In order to dispose of them, an effort has been made to re-interpret and re-formulate the said law in such a way, that no such contradiction would arise.[15]

However, the general impression one obtains from the historical examination of the WE–PH relation is that most, if not all, Soviet philosophers do assume as unquestionable axioms the content of WE and that usually if contradictions do arise between it and some philosophical conclusions, the latter and not the former are re-formulated.

4.6. *Misunderstandings and moral valuations*

Again, as in the case mentioned above (3.5) there seem to exist severe misunderstandings of the situation described here. It is due, as in the former case, to the confusion between the *Weltanschauung* and the politically imposed doctrines on the one hand, and to the lack of sufficient logical knowledge on the other. Thus, it is often said, that a Soviet philosopher struggling with inconsistencies within the CTD is doing something quite irrational, namely trying to correct his rational views by use of politically imposed slogans. This is obviously not true, at least in the case of such Soviet philosophers, who seriously uphold their *Weltanschauung.* They are not compromising with politics, but trying to build a consistent system out of two sets of sentences they believe to be equally valid. Their situation is, consequently, from a purely logical point of view, not dissimilar from that of a scientist, who is faced e.g. with an inconsistency resulting from the difference of results obtained by astronomy and geology about the age of Earth. We may disagree with the Soviet

philosopher as to the truth of his premisses, but once he does admit that truth he seems to be, logically, in exactly the same situation as our scientist. He is performing the *rational* work of ordering his beliefs.

It follows, that negative moral valuations of such efforts are unwarranted. Of course, nobody among those who know how much obvious nonsense has been written in Communist countries by men who must have known that it is nonsense, will deny that such immorality is present in the science and philosophy of Communist society. But it does not follow that all Soviet philosophers are guilty of such immorality. On the contrary, we have every reason to admit that a number among them are doing honest intellectual work, trying to do the best with the premisses they believe to be true – and trying to do it on the best rational way available to them.

5. Problems of justification

5.1. *On justification in general*

It is sometimes being said that *Weltanschauungen*, religions, ideologies etc. are accepted without any justification, by a sort of "blind leap" as it is poetically said. But, apart from the fact that this is flatly contradicted by Communists in so far as WE is concerned, the situation seems to be more complex than that. Thus, it may reasonably be assumed that a mentally sane man is not prepared to accept a sentence, which he believes to be important to him, without any justification. It does not need, perhaps, to be a *full* justification, but it seems that *some* such justification must be present – except in pathological cases – in every sort of *Weltanschauung*.

Such a justification is not a justification *in* the discourse, but *of* the discourse itself. Once this discourse, i.e. its principles, are accepted, then many sentences may be justified by them. It is claimed here that those very principles need some sort of rational justification themselves.

In so far as they are concerned, it seems that the stress must be lead on the *basic assumption* (3.13) with the corresponding heuristic rules (3.12). It seems that a partisan of an ideology does not, primarily, accept some detached sentences belonging to it, but rather the said ideology as a whole; and if so, it is only reasonable to admit, that he is accepting first of all its basic assumption.

5.2. *Soviet views of justification of WE*

Now, contrary to what we find in other sectors of our subject, there exists a well established Soviet doctrine about the way in which Communist ideology and in particular WE, is justified. This doctrine may be summarized in the following terms:

(1) The WE is *fully justified* by purely rational means. Whoever uses other ways of justification of his views or accepts them without any justification is said to be a "fideist", which is in Communist terminology an insult.

(2) This justification is *indirect*. There is, as far as it seems, no direct insight in the truth of the basic assumption of WE, but other sentences being obtained by direct methods, that assumption is reached by reasoning.

(3) The basis, i.e. the premisses with which that reasoning lastly starts, are *empirically given* sentences, namely, sentences which express sensually observed facts.

(4) The type of reasoning used is identical with that applied in *science*. And if one considers the use of the term "science" in its context, he finds that "science" nearly always means natural science. Therefore the basic assumption of WE has to be justified by rational methods identical with those of natural science.

That is why the Communist WE is often said to be the scientific *Weltanschauung*, and even the only scientific *Weltanschauung* in existence. Its justification is based on the same sort of premisses as that of scientific explanatory sentences, it is conducted by the same means and obtains results of the same type as that of natural sciences.

The only difference, as far as explicitly stated, is that the sentences of WE are by far more general than those of any science. It is, in other terms, the most general part of sciences and nothing else.

Stated in such terms, the Soviet theory of WE appears to be closely similar, if not identical, to that of Auguste Comte. It is a radically positivistic view of the *Weltanschauung*.

5.3. *Criticism of the Soviet theory*

Against that theory several devastating objections may be formulated. They are all based on the observation of the linguistic behaviour of Communists themselves, not excluding the thinking Soviet philosophers.

Cumulatively, the effect of that criticism seems to be so strong, that the Soviet doctrine of the justification of WE appears as completely wrong.

(1) First, the *methods* of justification used in sciences, and above all in natural sciences, are characterized by their *emotion- and value-free nature.* A scientist may talk in his science *about* emotions and about values, but he does not use emotions and valuations, other than theoretical in his own work. But in the justification of the Communist *Weltanschauung* the emotional attitude and the use of valuations is constant. Even if a given Communist philosopher writes – as it sometimes happens – in a style free from emotionalism, he still seems to presuppose valuations in his system. It has been not unconvincingly asserted that the whole theoretical aspect of WE is built up exclusively in order to explain such valuations.

(2) Second, the *way in which explanation is conducted* is by no means similar to that used in sciences. The main difference is, that the elements of the WE have either no empirical meaning at all, i.e. that they do not allow any empirically verifiable prediction, or that they are so general that the result is the same. An example of the first type of explanation is *Atheism*, which is quite clearly an empty sentence from the point of view of science, a typically metaphysical sentence. An example of the second is the *law of motion*, according to which everything is in continuous change. This is empirically meaningful, but a quite useless generalization. Another instance of the same type is the supposed law of contradictions. There is no way of obtaining anything useful for sciences from it.

(3) Third, *some* among the *assumptions which are basic in natural sciences are not accepted* in the process of justification of WE. There is, e.g., an assumption which prescribes that the well-established results of every well-constituted science have to be accepted. But Communists do often disregard such conclusions and assert their WE against them.[16]

(4) Fourth, the results of the scientific explanation are always supposed to be provisional and, consequently, there is an inherent postulate that criticism of them is to be considered. But Communists take their WE to be "absolute truth" i.e. a set of sentences which will never be discarded by the progress of knowledge. Consequently the WE has a dogmatic character quite alien to science.

5.4. *Possible alternative theories*

It follows, that WE cannot be and is not justified in that way. Assuming

that there *is* a certain justification of it, the problem arises, what is it? Here are some possible alternative views as to that question.

(1) The WE might be based on philosophical insight. In that case it would be comparable to a philosophical system, such as that of Leibniz or of Hegel. Some verification of such systems is possible, but they are conducted differently from those of sciences and, above all, the main reason of acceptance is not the verification, but the basic insight.

(2) The WE might be also a set of explanatory sentences, but their basis might be different from the set of empirical sentences used in sciences. One could think, e.g., that this basis is constituted by valuations, both moral and aesthetic, or by valuations plus the results of some sciences, or even by the totality of human experience as found in Communists or in their "classics".

(3) Finally a purely pragmatic justification may be used. By this we understand a reasoning of the following type. If x accepts P, then acting as if P were true, x hopes to obtain some desired results Q. The difference between that method and the above mentioned (2) consists in the circumstance that here no sentences about what is or what ought to be are supposed, but exclusively statements about the relation between some activities and some aims.

5.5. *Hypothesis about the method really used*

Given the state of the research in such problems, which is very unsatisfactory indeed, and the lack of any sensible theory offered by the Communist philosophers themselves, it is hard to know how the latter do really justify their ideology. However, the following hypothesis appears as plausible, in so far as it seems to explain the linguistic behaviour of Communist philosophers.

The hypothesis is this: Communists – or at least their thinking philosophers – do use simultaneously all three methods described in 5.3. They have some insights into the structure of reality – this above all in so far as the Hegelian elements of their views are concerned. They also use reductive reasoning, both from sentences about historical facts and from value-sentences. And, finally, they seem also to use the pragmatic method. There is no single way by which the WE would be justified, but a multiplicity of methods, used simultaneously or alternatively.

However, this meets with the following difficulty: each of these methods

may yield a (partial) justification of one or another element of the objective content of WE. But what a Communist seems to accept primarily are not the single elements of it: rather he accepts first of all the Communist *Weltanschauung* as a whole, and that means that his justification must yield its basic assumption as conclusion. How can those different methods converge to obtain such a result?

The answer seems to be this: one or another of the said methods helps the Communist to justify single elements of the objective content of WE It is by reasoning (reductively) from such elements that he gets the basic assumption.

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1. The only book on the subject known to the author is: Blakeley, Th. J.: *Soviet Scholasticism* (Sovietica). Dordrecht 1961. This excellent study is, however, conducted from a point of view different from that assumed in the present paper.
2. That such trends do exist – of course not under the names used here – may be best seen in the discussion about the object of psychology which took place between 1952 and 1956, mainly published in the *VF*. See especially the concluding editorial statement *VF* 54, 4, 182–193; also the introduction (by S. L. Rubinštejn) to the *Psixologia* (Inst. psych., 1956).
3. Kedrov, B. M.: 'Kritičeskie zametki na filosofskie temy', *VF* 1948, 1, 53–71; Kamenskij, Z. A.: 'K voprosu o tradicii v russkoj materialističeskoj filosofii XVII–XIX vekov', *VF* 1947, 2, 220–243, cf. 1948, 3, 7. See also the discussion on the latter quoted by I. B. Astaxov (*VF* 1948, 1, 184–189), J. Z. Černjak (*Ibid.* 192–194), V. C. Goffenšefer (*Ibid.* 189–192).
4. *O položenii v biologičeskoj nauke.* Moskva 1948.
5. See, e.g., I. V. Blauberg: 'O kategorijax celogo i časti v marksistskoj filosofii', *VF* 1957, 4, 41–50 for the former and A. I. Uëmov: 'O dialektiko-materialističeskom ponimanii svjazej meždu javlenijami', *FN* 1958, 67–76, for the latter.
6. Philosophy is said to be quite "ideological", while science, or at least the truly "scientific", i.e. non-philosophical, parts of science are supposed to be non-ideological. The distinction, made possible by Stalin's ukase about language (*Pravda* 20/VI/1950, *VF* 1950, 1, 3–16), was first elaborated by G. E. Glezerman: *Bazis in nadstrojka v socialističeskom obščestve.* Izd. AN 1954, at least in regard to natural sciences. How uncertain this distinction still is may be seen from the footnote in the *Osnovy Marksistskoj Filosofii*, IF, 1958, p. 563.
7. First in: 'O klassifikacii nauk', *VF* 1955, 2, 49–68.
8. The procedures used are examined in the work of Blakeley quoted in note 1.
9. More precisely, Soviet texts always talk about conscience, thought, etc. The statement, which is Leninist (*Materializm i Empiriokriticizm*, Polnoe sobr. soč., izd. 5e, 1961 pp. 149 and 276) is constantly repeated by all Soviet texts in a most emphatic way, e.g. by the *Osnovy*, quoted in note p. 116 f.
10. This is also quite classical; e.g. *op. cit.* p. 259.
11. *Ibid.* p. 256. The chapter concerned is an extreme example of the confusion which often reigns in such textbooks. There are, fortunately, some far better statements,

like those in: N. Lobkowicz: *Das Widerspruchsprinzip in der neueren sowjetischen Philosophie* (Sovietica), Dordrecht, 1959.

12. This subject has been amply treated by S. Müller-Markus: *Einstein und die Sowjetphilosophie I* (Sovietica), Dordrecht, 1962 (vol. II in print).
13. One such discussion took place in 1948 between M. A. Markov ('O prirode fizičeskogo znanija', *VF* 1947, 2, 140–176) and A. A. Maksimov. See the statements of D. I. Bloxincev (*VF* 1948, 1, 212–214), D. S. Danin (*Ibid.* 217–222), I. K. Kursev and V. A. Mixajlov (*Ibid.* 207–209), A. A. Maksimov (*Ibid* 3, 222–228), S. A. Petruševskij (*Ibid.* 1, 211f.) etc. This is just one example.
14. Namely, by Stalin and, of course, by everybody else in the SU between 1939 and 1956.
15. See the study of H. Fleischer: 'Die Idee der historischen Notwendigkeit im historischen Materialismus', *SST* 2, 181–203.
16. This often happened with doctrines which were imposed or which attempts were made to impose, *as* belonging to WE. The victims of such attempts considered them, of course, as belonging to PO. The two classical instances are: the "Lysenko" discussion (see note 4) and the "trial" of Einstein (see note 12); but it would be easy to quote other cases still. It is, e.g., a dogmatic tenet of Communists that the world is not only unlimited, but also infinite, a contention which might be contested by astronomers.

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SOVIET ETHICS AND SOVIET SOCIETY*

The increasing and sustained interest in ethics in the Soviet Union reflected in the Soviet philosophical literature since 1958 has continued with more books (21) and articles (35) devoted to ethics in 1963 than in any other single previous year.[1] But the philosophical literature is only a partial index of the great official interest in ethics and morality present in the Soviet Union, which has been generated by the new Program of the CPSU, and has been reinforced by L. F. Il'ičev's June speech on ideology.[2] The aim of this paper is to explore the present status of Soviet ethics and morality. I shall do this first by briefly analyzing the current Soviet ethical literature; then by examining the consequences of the functional role assigned to morality in Soviet society; and finally by analyzing the status of the ideals presented as the epitome of Soviet morality.

I. THE PRESENT STATUS OF SOVIET ETHICS

Soviet ethics is defined as the "science of morals"[3], where by 'morals' is meant "the totality of principles or norms (rules) of men's conduct, regulating their relations to one another as well as to society, to a certain class, to the state, country, family, and so on and supported by personal convictions, traditions, education, and the force of public opinion either of a certain class or of society as a whole".[4] As a form of social consciousness morality is determined by the economic and social conditions and relations of society. Marx and Engels accordingly have little positive to say of morality though a good case can be made that much of Marx's writings were motivated by moral indignation. Consistent with the rest of his theory Marx claimed that moral wrongs and immoral customs or practices could not be changed by preaching or moralizing but only by

* This is a slightly revised version of a speech read on April 9, 1964 at a conference on "Philosophy, Ideology and Society in the Soviet Union" held at the *Osteuropa Institut* of the *Freie Universität* in West Berlin.

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changing the material conditions of society. Thus there was little need to theorize at length about morality.

Soviet ethics has flowered only since the 1950's, when morality, it was argued, was not merely determined by the base but could play a part in the development of society. From the beginning, however, Soviet ethics was stillborn, for it lacked philosophical life. The basic tenets of historical materialism were applied to social consciousness, and the meanings of 'good' and 'bad', 'right' and 'wrong', were found to be determined by the material conditions of a given class of society and to develop according to the development of social relations. The basis of morality has never been discussed or debated in the Soviet ethical literature but merely stated and generally accepted. Some discussion did and still does arise concerning such things as the determination of ethical categories, the distinction between 'norms' and 'principles', and the like; but such debates have been for the most part peripheral to the basic questions of ethics. The term 'metaethics' appears in the 1963 *Filosofskij Slovar'* and is defined as the investigation of "ethical statements, and their relation to the truth, structure, and construction of ethical theory".[5] But there is scarcely any metaethics present in the Soviet literature.

Since 1961, when the new Party Program promulgated the Moral Code of the Builder of Communism, Soviet ethical literature has not significantly changed, though the number of works devoted to ethics has increased not only in the philosophical but also in the popular press, in newspapers, pamphlets and the like. The Party Program read: "The Party holds that the moral code of the Builder of Communism should comprise the following principles", which it then enunciated.[6] From an analysis of 21 articles which appeared in 1962 and of 25 which appeared in 1963 in *Voprosy Filosofii* and *Filosofskie Nauki* I have not found a single instance of anyone questioning the moral code, in principle or in detail, or attempting to challenge it, modify it, or explain in detail how it was arrived at. What "the Party holds" has been accepted, repeated and elaborated upon. There are many articles explaining the code's contents, and some also which deal with the question of how best to teach and to spread the moral code. Recent books and manuals dealing with ethics almost invariably mention and usually explain the code in some detail. The program for the course in Marxist-Leninist ethics for the People's Universities of Culture or Departments of Ethics[7] (1962) indicates that 30 out of 56

hours of the course on ethics are to be spent on the contents of the Moral Code. The Moral Code has thus been uniformly accepted by Soviet philosophers. The fact that it has been so uniformly accepted is especially noteworthy if we consider how great a revision of Marxism its promulgation really is. This is made clear by considering what Professor Adam Schaff, the leading Polish Marxist-Leninist philosopher had written earlier: "...a Marxist should know, in the first place, that moral codes arise from life as specific reflections in human consciousness of existing social relations, and so cannot be composed or decreed at will. And in the second place, a Marxist should know that the traditional type of code was always formulated in the belief that moral standards were imposed on man somehow from outside, and because of that had a religious character even when they had an outwardly lay appearance. If it is agreed that man is the master of his own destiny... the idea of laying down moral standards from above in the tradition alway becomes impossible."[8] The promulgation of a moral code has no clear basis in the Marxist classics, and thus it seems there should have been room for debate about it among Marxist-Leninist philosophers. Yet there was no printed discussion prior to its appearance and not one voice was raised in question nor one line of surprise or rebuke printed when the Code appeared.

In addition to articles dealing with the Code a large number of articles discuss the best means of educating workers in the general spirit of Communist morality. The rest, almost without exception, also take their departure from some portion of the Party Program. This is true even of those articles on personality development, on the division of labor, and on humanism, which have perhaps been the more interesting and controversial topics of ethical discussion. There is to my knowledge no indication from the printed literature[9] that Soviet ethics is developing at all autonomously, independently of Party needs and decisions. The level of competence of some of the writers is improving somewhat in that now Western theories are more carefully stated and refuted than previously. But there seems to be no serious concern with questions of metaethics, and in rather isolated instances where an undeveloped problem is approached, such as in Tugarinov's *O cennostjax žizni i kul'tury*, the solution is always within the prescribed Marxist-Leninist framework.

The conclusion which it seems can be drawn from the Soviet ethical literature since 1961 is that, irrespective of the situation in other areas of

philosophy, ethics is almost completely dominated by the requirements of the Communist Party. The formulation of principles is made by the Communist Party. (Whether or not it does so with the advice or concurrence of some ethicians is irrelevant to the philosophical development of ethics.) The principles are then dutifully explained, amplified, and defended by ethicians both in the philosophical and in the popular press. There is no reason, therefore, on the basis of present writings, to expect any developments in ethics which would tend to bring about revisions in basic dogma. Il'ičev's statement that all activities since the 22nd Congress have been subordinated to a realization of the decisions of the Congress and the new Program[10] is borne out by the Soviet ethical literature.

The promulgation and the widespread dissemination of the Moral Code of the Builder of Communism, and the stress on Communist morality – themselves revisions of no mean proportion from classical Marxism – have been apparently brought about, not by the philosophers under the pressure of theory, but by the Party under the pressure of practice. In order to understand this better we should turn to the role of ethics and morality in Soviet society, based both on Party documents and their elaboration in the philosophical literature. For in the light of these considerations we can see why original developments on the part of ethicians are almost precluded by the Soviet notion of morality and of its function in society.

II. THE FUNCTIONAL ROLE OF SOVIET MORALITY

The Party Program describes the role of morality in this way: "In the course of transition to Communism, the moral principles of society become increasingly important; the sphere of action of the moral factor expands and the importance of the administrative control of human relations diminishes accordingly."[11] Il'ičev throughout his speech emphasizes and makes even more explicit the role and importance of morality, going so far as to claim: "Unless we eradicate the moral principles of the bourgeois world, unless we rear people in the spirit of Communist morality, unless we spiritually regenerate man, it is impossible to build a Communist society. The very nature of Communist social production and distribution requires a new man, a new attitude to labor and to one's social obligations, new discipline, a new morality."[12] Morality thus is

presented as a *sine qua non* of building Communism, a claim which tends to become intelligible only when we see what morality is to do.

(1) Morality is to become a form of social control, supplementing and eventually replacing the rule of law and force.[13] This is morality's most important function. Providing the Party decides what is moral and what is not, the ultimate replacement of external force by moral pressures does not significantly change the demands of Soviet society on an individual. But if morality can reinforce and eventually in the distant future replace force, the result would be a more content, manageable, disciplined population which could live effectively – at least in theory – with the minimum of administrative control and "public self-government"[14] which the Program promises in the Communism which it is building for this generation.

(2) With Communism promised for the foreseeable future Soviet leadership is faced with the fact that theft, hooliganism, and violence, as well as such things as parisitism and drunkenness are disconcertingly present.[15] If these are to disappear, it seems that more must be done than merely change conditions of production. For these crimes persist despite existing socialistic conditions of production. The teaching of moral norms is seen as a means of hastening the objectively predetermined disappearance of these criminal remnants of capitalism by helping to lessen the lag of consciousness behind being.[16]

(3) Until the distant time when law fades away and is replaced by morality, morality is a means and rationale for strengthening present law and legality. For (i) whatever is demanded by Soviet law is also demanded by Soviet morality, and so to the coercive force of law is added the moral force of public opinion and conscience[17]; and (ii) since the moral sphere is broader than the legal sphere and since law is a means of training people to act morally, the future role of morality provides present justification for extending the sphere of law.[18]

(4) Morality is a means of securing popular support for political decisions and governmental policy, both foreign and domestic. For the Communist Party claims to be both the leader of the country politically and the guide and guardian of Soviet morality. Party decisions thus carry political as well as moral authority, and moral opinion and persuasion accrue to them. Morality is similarly a means of developing patriotic consciousness, of making service in the armed forces more palatable, and of lending moral authority to military commands.[19]

(5) The function of morality, according to Soviet writings, is perhaps even more important in those areas which seemingly cannot be legislated. It is quite impractical, for instance, if not impossible, to legislate initiative at work. It is quite possible however to motivate initiative at work by attaching moral worth to such initiative. And this is precisely what is being done.[20] In fact the whole realm of work discipline and motivation is one that is now receiving considerable attention in Soviet ethical discussions. L. B. Volčenko claims that many millions permeated with the spirit of Communist morality now work without imposed controls just as buses run without the control of a fare-taker.[21] Morality is seen as a means whereby workers may be stimulated to increased production, once they become convinced that increased production, care of tools, etc. are their moral duty.

(6) Morality is also seen as a means of keeping workers content and interested in their work. Thus N. F. Naumova says: "It would be a mistake to count on our being able in the very near future to provide absorbing and creative work for all members of our society. For this reason it is necessary to inculcate in each person a feeling of duty which makes him put all of his strength and abilities into the work which he is doing, and an honest attitude toward his work whatever it may be."[22]

(7) In a similar vein, M. G. Žuravkov argues that if the consciousness of social duty is inculcated in people they will tend to act for the sake not of personal advantage but of social development, for they will receive satisfaction from their consciousness of having fulfilled their duty.[23] By giving a purpose and meaning to life, morality and moral ideals can overcome the feelings of restlessness and dissatisfaction which lead to social disharmony. Moral consciousness thus makes up for deficiencies in the material base!

(8) Finally morality can serve to foster the Party's aims in areas of personal life such as marriage, the family and the education of children at home, where law finds a more restricted area of play, due both to the variety of differences tolerated and the personal and private nature of the sphere of activity.[24]

Morality in Soviet ethical writings is thus seen to play a *functional* role in society, reinforcing law and state actions, fostering work discipline and initiative, providing a type of satisfaction to tasks having little intrinsic satisfying qualities, and fostering the kind of family, marital and other

behavior desired by the government and Party. To this is added the idea that morality is not something to be freely adopted and adhered to but something to be inculcated so completely by all means possible that eventually its rules will be inviolable.[25] The Party as the guide and guardian of society is the author, guide, interpreter, promulgator and inculcator of moral norms and principles.

The upshot is that morality in the official Soviet view is not an end in itself, but a means to an end. The end is at least nominally the achievement of Communism, which is claimed to be the moral end of mankind; but morality is a means of social control and of work discipline and stimulation which the Party is attempting to utilize to govern and to foster its policies. This use of morality is what Marx of course claimed was true of all states in the history of mankind. But whereas it was perhaps in past times veiled and used unknowingly there can be no doubt that it is being used to serve the ends of the Party in the Soviet Union today. Morality is not only utilized by the Party but openly legislated by the Party. And there is good reason to believe that it is being used with some success, though the extent of the success remains an open question at the present time.

The fact that morality is seen primarily in a functional capacity in the Soviet Union provides an index to what is meant by 'morality', and what is meant by it seems not to coincide with what is meant by 'morality' in Christian, Kantian or natural law theories of morality. If morality is merely an instrument of the state, then the objective criterion of morality, determined by the state, becomes all important. The conscience of the individual thus becomes something not to be respected but to be formed. And such a view of conscience is what we find in Soviet ethical literature.[26] Kant's notion of the individual as morally autonomous is rejected, as is any notion of the moral worth of the individual except insofar as he reflects the objective moral norms of society.[27] The possibility of a Soviet Antigone being right against a Soviet Creon is precluded, and consequently there is scarcely mention of subjectively right acts in the ethical literature, or of subjective conditions necessary for moral guilt. Because morality is seen only as an instrument of social control questions of the logical status of moral judgments or phenomenological analyses of guilt tend to become irrelevant and thus to be ignored. Such considerations are purely theoretical and there is little impetus for such investigations

when morality has only a functional status. Moral action is in effect made equivalent to action approved of by the Party. Responsibility, conscience and the like are interpreted from an almost purely objective perspective because objective results are the primary concern. Any interior facet of moral choice is of concern to the theoreticians – if not to the individual person – only insofar as it can be formed, trained or conditioned. When the Party is the conscience of the people[28], it is doubtful whether the individual can still be called a moral agent.

The paradoxical consequence is that if so-called Soviet morality is successfully inculcated in the Soviet people *to the extent and in the way the Party desires*, though society will function as efficiently as a bee-hive – even a creative bee-hive – the Soviet citizen will be essentially a-moral. For if, as the Party desires, morality is a result of social conditioning, if the response to duty is automatic and the content of duty is dictated from above, if the autonomy of the individual is subordinated to the direction of an egoless society, and if individual conscience is merely the subjective reflection of the Party's demands instead of being the last court of appeal, there is serious question whether one can be said to be talking any longer of morality in any recognizable sense of the term.

III. THE SOVIET MORAL CODE

The brunt of Soviet moral teaching is now being concentrated on the Moral Code of the Builder of Communism. The twelve-point code is explained not only in the philosophical literature, but also in the press and in popular pamphlets; it is posted conspicuously on city billboards, in shops and hotels, and is taught in schools and collectives.[29]

The code was formulated by the Party in its function as vanguard of the proletariat. It lists twelve basic moral principles which it holds all Soviet citizens are to follow and to see that everyone else follows. To some extent the principles are clearly ideals and are admitted to be so.[30] But in Soviet terminology they are real as opposed to utopian ideals in that they represent the traits of Soviet man as they are now being developed and as they will ultimately develop. They are claimed to be the most general expressions of the highest moral ideals of the present epoch and the furthest development of the Leninist position on the criteria of Communist morality.[31]

The ideal, the moral code, includes much that other moral codes also include, and what the Program calls "the elementary standards of morality and justice" [32], i.e., such things as honesty, truthfulness, moral purity, and the like. What distinguishes it as a code is first, that its controlling principle is "devotion to the Communist cause"; secondly, that it is "work oriented": and thirdly, that it presents an externalized approach to morality. Duty is always social and socially determined, in particular by the Party: collectivism is stressed. It is both from one's collectives that he learns his duty and it is his collective that helps supply motivation for his fulfilling his obligations. Insofar as duty is social it is not private but public knowledge: and the ultimate stopping place is not one's conscience but the collective which prescribes the objective demands which the individual is to live up to and internalize.

That devotion to Communism, the quasi-deification of labor as the source of creative power, and the immersion of self in society are the highest human moral ideals is certainly open to question. They may well be held to be such by some, perhaps by many, Soviet citizens. But it seems quite obvious that they can be ideals only for those who are committed to Communism, believe that it will be achieved, and accept the Communist Party formulations of the moral traits of the builders of Communism on the word of the Party expounding them. That the Party was admittedly wrong as recently as the Stalinist era must be overlooked; and the claim that these and similar abuses can never occur again must be believed. For the claim that these moral principles reflect and are based upon the demands of the objective development of Soviet society is never defended in detail. The Party sees clearly and is to be trusted, believed and obeyed. The degree of morality resulting from such a framework may seem less than ideal to one who believes in the autonomy of the individual person, or in a natural law open to man's reasonable scrutiny; but such objections are based on another and opposing view of man, and here lies the main difference between the Soviet and most traditional Western views of morality. If the Party succeeds in forming the new man of Soviet society – a huge and uncertain task – there is reason to feel he will lack the notion of intrinsic personal value and responsibility which seems to have characterized the pinnacle of Western thinking on man thus far and which basically separates the Soviet from many Western moral ideals. For he will consider himself only as a part of society and not as an end

in himself. If the Party succeeds, therefore, a type of non-legal social control will remain. But why such control is termed 'moral' is not clear. When it becomes impossible for rules to be broken (the Soviet ideal), morality in any ordinary sense of the term will have disappeared. Marx saw this and consistently preached it. Because of practical exigencies, the Soviets have emphasized the active role of morality. But they have thus introduced an ambiguous use of the term 'morality'. The ambiguity is useful, however. For any so-called Communist society which can be achieved by the present generation will be Communistic not in the classical Marxian sense but in the sense designated by the Communist Party. Morality as an instrument of the Party will thus undoubtedly remain necessary. The revision of Marx's notion of Communism accordingly justifies a revision concerning the continuation of morality. To the extent that the Soviets *fail* to achieve the ideal of Communism they paradoxically preserve morality in its traditional sense.

In conclusion it seems that on the basis of this analysis we can say: (1) that both Soviet ethics and Soviet morality are subordinate to the Party: (2) that the Party is utilizing morality as a form of social control; and (3) that to the extent that the Party succeeds in inculcating its purely functional approach to morality, morality, in its traditional meaning will wither away – the Party Program notwithstanding.

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5. *Filosofskij slovar'*, p. 530.
6. 'Program of the Communist Party of the Soviet Union', Two, V, 1 (c). In *The Road to Communism: Documents of the 22nd Congress of the CPSU.* Moscow, Foreign Languages Publishing House. 1961. p. 566.
7. *Primernyj učebno-tematičeskij plan i programma po osnovam marksistsko-leninskoj*

étiki (*dlja narodnyx universitetov kul'tury ili fakul'tetov étiki*). Moskva, Znanie. 1962.

8. 'A Philosophy of Man'. *The Monthly Review Press.* New York. 1963. p. 83.
9. Lewis Feuer has recently claimed on the basis of a four and a half month stay in the Soviet Union that among the younger philosophers there are some "existentialist Marxists" (*Slavic Review*, March 1964, p. 118; *Survey*, April 1964, pp. 13ff.). Their writings, however, never see print.
10. Il'ičev, p. 5.
11. *Program...*, Two, V, 1 (c), pp. 565–566.
12. Il'ičev, p. 10.
13. *Program...*, Two, V, 1 (c), pp. 565–566 and Two III, 2, p. 556.
14. *Ibid.*, Part Two (Intro.), p. 509.
15. The standard explanation is that these are "remnants of capitalism". A. B. Saxarov. in 'Stroitel'stvo kommunizma i ukreplenie obščestvennogo pravoporjadka' (*VF* 1962, 9), claims these remnants are the result of the lag of consciousness behind being, the presence of the capitalist camp, and the result of mistakes such as made under the rule of the cult of personality (pp. 41–42).
16. *Ibid.*, pp. 43–45.
17. Trofimov, N. A.: 'O perspektivax razvitija morali i prava v ix vzaimnom otnošenii' *VF*, 62, 5, p. 24.
18. Ibid., p. 25–26; M. S. Danieljan, *Nekotorye voprosy m-l étiki* (Erevan, 1962), pp. 52–54.
19. *O Kommunističeskoj étike* (Leningrad, 1962), p. 334.
20. Laptin, M. N.: *V. I. Lenin o material'nyx i moral'nyx stimulax k trudy.* Moskva. 1962. p. 147.
21. Volčenko, L. B.: *'Marksistsko-leninskaja étika o sovesti'. VF* 62, 2, p. 142.
22. Naumova, N. F.: 'Dva Mira – Dva Otnošenija k trudy'. *VF* 1963, 1, p. 23.
23. Žuravkov, M. G.: 'XXII S"ezd KPSS i nekotorye voprosy étiki'. *VF* 62, 2, p. 9.
24. Korolev, Ju. A.: 'Vzaimodejstvie morali i prava v bračno – semejnyx otnošenijax'. *VF*, 63, 11, 75–85.
25. *Program...*, Two, V, 1 (c), p. 566.

The means of inculcating morality are education, and the forming of public opinion through collective work, literature, science, art, and mass media such as the newspapers, movies and the like. Questions of the most effective techniques of spreading morality, of forming consciences, and of molding public opinion are being raised and discussed by such social psychologists as A. I. Gorjačeva ('O vzaimootnošenii ideologii i obščestvennoj psixologii', *VF* 63, 11, 57–65) and N. V. Kol'banovskij ('Nekotorye aktual'nye problemy obščestvennoj psixologii', *VF* 63, 12, 16–25). Ideally the process should be one of conditioning a response to the concept of duty such that once the statement is made that "*x* is your duty" there is an automatic response in the form of a desire to do *x*. However such conditioning is far from being on a scientific footing with respect to populations as a whole. Kol'banovskij claims that the central problem of social psychology is the theoretical analysis of the interrelation of people in a collective (*op. cit.*, p. 18). The effects of imitation, 'psychological infection', etc. are still to be worked out, though Makarenko and Pavlov both have much to contribute, and though there is the broad experience of practice in the Soviet Union to fall back on. To change the principles of the moral code into habitual norms of action, Kol'banovskij indicates, means not only teaching the principles but convincing people of them; and this

may be a long and painful process. There is to my knowledge no discussion of whether certain means of achieving such conviction are themselves moral; nor of the distinction between personal conviction as a result of conditioning and personal conviction as a result of rational choice.

26. See, for example, Šiškin, p. 409–417.
27. For a discussion of the basis of moral values see my paper, 'Value Theory in Soviet Philosophy: A Western Confrontation', *The Proceedings of the XIII International Congress of Philosophy*, 1963, Vol. IV, pp. 133–143.
28. Šiškin, p. 512.
29. *Supra*; also *O Kommunističeskoj étike*, p. 37.
30. *O Kommunističeskoj étike*, p. 37; Arxangel'skij, L. M.: 'O Kommunističeskom nravstvennom ideale'. *VF* 1961, 11, 126–137. A slightly different interpretation, however, is given by G. M. Gak, 'O moral'nom kodekse stroitelija Kommunizma' in *Voprosy teorii i praktiki kommunističeskogo vospitanija* (Moskva, 1962), p. 26.
31. Arxangel'skij, p. 133.

    The moral code as an ideal suffers from the same defects that Communism itself as an ideal – moral or otherwise – suffers. As a supposedly real ideal it is one which will be realized, though not inevitably. It will be realized if (1) it is a realizable end, which (2) man desires, and which (3) he choses the proper ways and means of obtaining (Afanaseev, V. G.: 'Ponjatie zakona v marksistsko-leninskoj filosofii'. *VF* 63, 9, 146–158). Here I am following not the deterministic interpretation of Marx but the voluntaristic one which seems to be the present Soviet view.

    But (1) whether the ideal is realizable is an open question. If we mean realizable by some men, it may have already been realized. If we mean realizable by all men, then clearly it has not been. While I do not think the ideal can be shown to be inherently contradictory, on the basis of certain views of man it seems unlikely that all men will subordinate their own interests to those of society whenever there is a conflict of personal and social interests. But it cannot be shown at the present time that the ideal can be realized. And if this is a necessary criterion for a real ideal, then the code (and Communism) cannot be shown to be real ideals.

    (2) That the ideal is desired is part of the present problem. It is desired by some, but it is not desired by all men, and not even by all Soviet men. The aim of the Party is to inculcate by proper education, propaganda and conditioning, a desire for the ideal in all Soviet citizens. Whether this aim will be achieved remains to be seen, and so again the basis for calling the ideal a real ideal is questionable.

    (3) If the realization of an ideal is not automatic but involves choices of means, then in any given conditions alternatives are possible. Alternatives allow for the possibility of error. The cult of personality shows that even the Party can err. Thus it is possible to choose wrongly and in fact not attain the ideal. Once again, therefore, the ideal cannot be shown to be real, though believing that it is may help achieve it.
32. *Program...*, Two, V, 1 (c), p. 566.

ERVIN LASZLO

A SURVEY OF RECENT TRENDS IN MARXIST-LENINIST AESTHETICS

MARXIST-LENINIST AESTHETICS AND SOCIALIST-REALIST ART-CRITICISM

This paper is devoted to a study of the main trends in Marxist-Leninist aesthetics. It is imperative, before approaching this task, to distinguish Marxist-Leninist philosophical aesthetics from ordinary socialist-realist art-criticism. The distinction is between a philosophic discipline with its own technical equipment, and criticism of specific artistic media and within the media of particular works, through criteria and concepts borrowed from the philosophical theory and applied in a quasi-philosophical, semi-poetical manner.

For the wide public of socialist countries socialist realism means a certain kind of art, and the theory demanding such art. Socialist-realist art is considered to be socialist in spirit and realist in execution, it is, in other words, a realistic mirror of life in the socialist world. Of the various branches of art, literature, with its explicit use of rationally explicable semantic symbols comes in for vigorous discussion and criticism by the Soviets, while serious music, with its increasingly vague harmonic, melodic, tonic and formal structures has proven to be the least definable in terms of precise criteria. Although books on music, as well as on the fine arts are written from time to time, and the schema of socialist realism is applied even to individual pieces of music, dance, paintings, sculptures, etc., critical discussion focuses on literature. Novels, plays, films, and to a somewhat lesser extent poetry, show an immediate and intimate correspondence to aspects of life in the socialist (as in the western) world. Socialist-realist criticism of literature lays claim to philosophic value inasmuch as it claims to be truly and correctly Marxist-Leninist. As a result, notwithstanding the fact that it is in fact on the whole no more philosophically qualified than average western art and literary criticism, in the Soviet world it is difficult at times to tell pretentious and naive art-criticism from simply poor philosophical discussion. But, if we take the

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average art criticism for philosophical aesthetics, we get a rather watered down kind of aesthetic theorizing. This is true of the West, as it is true of the Socialist bloc. When we do distinguish true philosophical theory from semi-poetic literary discourse, however, (as we do in regard to aesthetics in the West) we will find that Marxist-Leninist aesthetics has come up with some high-level philosophical arguments, worthy of serious consideration.

A simple criterion to use in distinguishing art-criticism from properly philosophical aesthetic discussion is to consider 'art-criticism' all arguments concerning the styles, techniques, and periods of particular artistic media, and 'philosophical aesthetics' all treatment of the common features of the art of all periods. Consequently art-criticism will be assigned the task of formulating the specific form of the art of particular artists and their schools, and philosophical aesthetics that of explicating the particular form in relation to the general aesthetic content, grounding critical discussion in philosophical premisses. This somewhat oversimplified criterion is proposed here merely as a working hypothesis for distinguishing socialist-realist art-criticism from serious and technical Marxist-Leninist aesthetics – a distinction which, owing to the use of Marxist-Leninist terminology by both, would otherwise be particularly difficult to make.

We shall consider philosophical aesthetics discourse on topics such as the nature and essence of the work of art, the nature and essence of beauty, the conditions of creating works of art, the conditions of enjoying them, the problems of the subject-object relation involved and implicated in the enjoyment of natural and artistic beauty and in the process of purposively creating (or re-creating) beauty in art. Such discourse is too complex as a rule to excite much popular interest in the ranks of the average art lovers. Though popularized summaries of the latest philosophic views appear from time to time in the Soviet world, in the form of articles in literary and cultural periodicals[1], and in the widely distributed series of *Osnovy* textbooks[2], art-criticism inspires much more comment, favorable as well as unfavorable, than philosophical aesthetics. In times of decreasing ideological pressures art-criticism is practiced by members of the younger generation of literates who, much as their western 'avant-guardist' colleagues, are armed with various 'advanced' ideas which seldom stand up to qualified philosophical analysis. It is not surprising

therefore, that if and when such an analysis is effected, a virulent form of revisionism should seem to emerge. In statements concerning the 'self-expression' of the poet in his works (for example) we may see a contradiction of the Leninist reflection theory, and thus construe novel forms of tolerated, overt revisionism in the Soviet bloc. But, it is evidently fallacious to consider ardent art-criticism for anything else than what it is, and see in it more than the sign of sufficient liberalization to permit their utterance in public and reproduction in print. When views concerning art and artists that disregard their implications for Marxism-Leninism multiply, and begin to predominate on the pages of cultural publications and on the stages of theatres, the political leadership tends to take measures to subdue their champions by issuing Party directives, changing the editors of the journals and the directors of the theatres. (Such has been the case in the USSR and Poland in the summer of 1963, and in Hungary during last December, for example.)

Philosophical aesthetics is not much affected by these doings, since the writings of philosophers are carefully studied as to their widest implications before publication, and if undue aberrations still occur, are immediately criticized in counter-arguments. Aestheticians know their Marxism-Leninism thoroughly, and the same cannot always be affirmed of the majority of art-critics.

Marxist-Leninist aesthetics is, in fact, basically the adaptation and adaptive application of Marxist-Leninist philosophy to the above enumerated problems of art and beauty, as well as to the problems which follow in their wake. It is impossible to correctly assess current work done on the philosophical elaboration of socialist realism without an appreciation of the special problematic raised by the adaptation of Marxist-Leninist premisses to the field of aesthetics. Hence, at the risk of repeating perhaps what the reader already knows of Marxism-Leninism, I shall give a brief outline of the basic problems which the philosophical premisses of that system of thought give rise to in the domain of aesthetics.

BASIC PREMISSES AND PROBLEMS OF MARXIST-LENINIST AESTHETICS

The philosophical theory of socialist realism is based on the synthesis of the two terms in its name and on their application to aesthetics. Realism and

socialism are intrinsic components of Marxist-Leninist aesthetics, and the definition of that discipline as 'socialist realism' is by no means unfounded.

Realism and socialism are terms charged with political as well as philosophical meaning. In the philosophical meaning (which is the meaning that interests us here) realism connotes trust in the veridical nature of sense-perception. Epistemological realists, such as Marx and Lenin, hold that perception is the reliable ground for the knowledge of reality as it exists independently of its cognition. The epistemological realism of Marx has been supplemented and reinforced by Lenin's formulation of his famous 'reflection theory' *(teorija otraženija)* according to which objective reality is given to man by his sensations, and is copied, photographed and reflected by them. Thus objective reality ('matter') is primary, and thought, spirit is secondary, being a reflection of the former. Yet realism even in this dogmatic formulation, would not directly imply socialism as a correlated postulate. The correlation of Marxist-Leninist realism with Marxist-Leninist socialism arises through the conjunction of Hegelian dialectic with epistemological realism, in the application of the dialectical principle to the knowing process. Dialectics, being a principle of metaphysical collectivism in Hegel, provides a collectivistic optic when applied to society, slighting the importance of the individual, making his personality collective-determined, through the struggle of his class with its opposite. Each individual, according to the dialectical view of societal processes, is determined by the opposition of contrary forces in society, representing the thesis and the anti-thesis. The opposing forces are the exploiting and the exploited class for Marx; individuals are non-existent *qua* distinct separate personalities, but only as ontic particulars.

The human being is basically a dialectical moment in the existence of his society; his consciousness, personality, behavior being determined by his class position. The class position is relative to the existent classes which, though actively struggling with another class (except under Communism) are determined as to their characteristics by the relations and forces of production. These constitute the mode of production which, in the eyes of Marx and his followers, determines the individual's personality make-up. Theoretical collectivism implies political socialism. Hence the 'socialist' term of socialist realism.

Realism and socialism are the basic premisses of Marxist-Leninist

aesthetics, notwithstanding the fact that several further postulates impinge upon the aesthetic doctrine to some extent. (Among these, mention should be made of the class-character of art, the function of art for social objectives, its typical and folk-characteristics (*tipičnost'* and *narodnost'*) and of the attempts to formulate the truly Communist art obtaining in the absence of class-antagonisms.) The theory of aesthetics grounded in Marxist-Leninist realist epistemology and in Hegelian dialectical collectivism raises a number of problems, the major ones of which may be summarized as follows.

If reality is reflected in the mind, then art, produced by man and corresponding to something present in the artist's mind, must be some reflected representation of reality. If the work of art is beautiful (or contains the quality of beauty in some form) then beauty, along with the other elements of the work, must be a reflective quality. Art can reflect reality or any part or aspect of it faithfully or badly, but it must reflect it nevertheless, for nothing created by man can be other than what is objectively given independently of his cognition. This tenet is reinforced by the Leninist reflection theory, explicating the Marxian assertion of the primacy of matter over spirit. The difficulty with this view of art is that, if all art is a reflection of reality, then we must account for its specifically artistic quality.

We cannot simply state that the work of art reflects reality since a correct reflection would be a scientific model then, and not an imaginative and perhaps slightly modified mirroring of objective things and events. The unqualified acceptance of the reflection theory would hold the perfect illustration of an object the best art, and great art would be tantamount to science. Art must reflect reality in some specific way in order to be 'art', rather than an illustration or a scientific model. But if we say that art is a specifically *aesthetic* reflection, then the question as to the specificity of the aesthetic quality of that which is reflected – or given in reflection through some reflective process – must be defined.

Is it that the artist comprehends reality differently from the scientist? But, if there can be great and true art, as well as science, then reality must be capable of producing diverse reflections in the mind. How do we know which is the correct one? If science is correct, and art fanciful, then art is an incorrect reflection, hence essentially not much more than merely fallacious science. We need criteria to establish what is right and

what is wrong, and further whether two different reflections could both be right, each in its own specific way. This is the central problem posed by the Marxist-Leninist epistemological realism.

Socialism raises a further difficulty. If art be a true reflection of objective reality, and objective reality be dialectical, then that which is reflectively reproduced in art must also bear the elements of the dialectical process which has given rise to the object reflected. But most art deals with particular objects and events. Can art represent the dialectical totality when it abstracts one aspect of it arbitrarily? Evidently, it can do so only if the abstracted aspect is not a self-contained whole, but a part of a greater reality. Hence the topic of art can never be something finite, perfect within its own, necessary limitations, but must reach beyond itself, and grasp the general, the ultimate. If, however, art generalizes the objects and events it reproduces, than we are back at science, for it is science that deals with general principles, rather than with unique particular events. Where can we accomodate the perfection of a finite composition, the self-sufficiency of a great work of art, the care for the unique, the precious, the non-recurrent and for the individually-subjective emotional? These are problems of the socialist component of socialist realism, posed by the collectivism of Marxist-Leninist philosophy.

MAIN LINES OF THE EVOLUTION OF MARXIST-LENINIST AESTHETICS

Origins and early development

Marx and Engels never treated questions of aesthetics systematically. Their views on aesthetics are scattered over several writings, including letters (Engels to Margaret Harkness, Engels to Minna Kautsky, Marx to Ferdinand Lassalle, Engels to Ferdinand Lassalle, Engels to Paul Ernst) which provide some insight into their aesthetic orientation by describing political personages and events in a realistic manner. In addition Marx wrote a treatise on a novel of Eugene Sue, Engels wrote on Goethe and on the poetry of 'real socialism', and produced a critique of the poetry of Karl Beck.

Lenin's writings contain much richer material for aestheticians. He wrote on Party literature (1905), on the memory of Herzen (1912), on Belinskij (1909), several essays on Černyševskij, even more on Gorkij and

Tolstoj. In addition, his views on realism may be assessed from numerous writings from as diverse topics as the 'war for pork' (*Uspenskij*) and from remarks on a book of A. Averčenko (1921). He also wrote profusely on socialist culture, on national culture and language, on the workers' press in Russia, and on cultural tradition. These writings have been carefully sorted out and presented under the title *Lenin o literature* (Lenin on Literature) under the editorship of V. R. Ščerbina (Moscow, 1941). Together with the aesthetically relevant writings of Marx and Engels, they constitute the original source material of socialist realism.

This somewhat meager material was greatly supplemented by the voluminous writings of Černyševskij (whose collected papers run to 1092 pages) and the art-critic Belinskij. Until the end of the Stalin era these writings served as the framework for deduction for Soviet aestheticians. The theory thus emerging was dogmatic and inadequate. It refused to recognize aesthetic specifics, ascribed beauty and art to the quality of reflection of matter, and spent much time in fighting bourgeois influences, which it held corrupt and fallacious. If the artist recreated objective reality faithfully, he was a great artist, and if that reality was socialist, he was a progressive one in addition. This simple thesis was applied to current artistic productions, upon which judgment was pronounced accordingly. The poor reputation of socialist realism was acquired during these times, and subsequent efforts have had difficulty in entirely dispelling it. But Marxist-Leninist aesthetics came into its own as a philosophical discipline after Stalin's death. The process was gradual, and most interesting. We may trace it on the pages of the leading literary journal of the USSR, *Voprosy literatury* (*VL*), which represented the forum for aesthetic discussions in the years following the end of the 'cult of personality'. *Voprosy literatury* printed articles of serious philosophical interest as early as 1957. Among the best works published in that journal we may point to V. R. Ščerbina's article on socialist realism (*VL* 1957, 4), V. Gusev's work on creation and *Weltanschauung* (*VL* 1958, 6) and the decisive article of Ja. El'sberg concerning the problems of realism and the tasks of literary science (*VL* 1958, 11) which represented the views of the editors, and closed that series of debates. The significance of these discussions lies in the fact that they do not merely re-state the classical tenets dogmatically, but attempt to substantiate them. Their central concern turned out to be with realism – as may be expected. This was the problem

also, to which a series of debates was devoted in April, 1957, the material of which has been subsequently published.[3]

In the following years the problem of realism was supplemented by more intricate questions, which included the problem of beauty raised by collectivism, modernism, and true socialist art. From about 1959 onwards, *Voprosy literatury*, *Voprosy filosofii* and *Voprosy éstetiki* are containing numerous articles concerning the nature of beauty, its objective or subjective quality, its individual and social aspects, and its representation in art. The air of optimism pervading the aesthetic scene a few years previously has been dissipated, and replaced by serious concern over the task of substantiating the basic premisses of socialist realism. Representative of the new trend was I. Rjurikov's essay on word-images and imaginal thought (*VL* 1960, 4) and V. Dneprov's monograph on critical realism and the question of innovation (*VL* 1959, 2), as well as the two collections of articles which were published at that time under the title *Problemy socialističeskogo realizma* by the Party School of the Central Committee and the Academy of Social Sciences.[4]

Recent developments

When arguments were permitted to attempt to authenticate the previously dogmatic socialist realist theory, that theory became dichotomic, giving birth to two opposing schools of thought, each claiming to represent the correct Marxist-Leninist standpoint in aesthetics. Both schools are grounded in the work of Černyševskij, wherein an inconsistency permitted contradictory deductions. In a study on the problem of beauty, Černyševskij[5] first asserted that the criterion of the aesthetic is life, more specifically normal, healthy human existence. This criterion is objective, since in the light of Marxist realism human existence is a determinable process, obeying objective laws. Thus according to this definition aesthetic qualities are present in all things which correspond to normal human living. But, the difficulty with this definition is, that not all things which live, or structurally, formally, or otherwise correspond to life are beautiful, while some things which have no relation or similarity to human life (such a crystals, special combinations of light and sound) may be found to be full of beauty. Realizing this difficulty, Černyševskij added the further definition, according to which aesthetic is all that *reminds* us of healthy human life, all that corresponds to our conception of what life is and

should be. This second criterion of the aesthetic is a subjective one, however. It assumes that aesthetic qualities are determined by the subject, and are not necessarily present in things as they objectively are, in themselves. Hence the first definition of Černyševskij could ground the school of aesthetics which is objectivist, holds on to the Leninist reflection theory in its original formulation and tends to be dogmatic and absolutist, while the second definition is well capable of providing the basis for the evolution of a progressive school, which removes aesthetic qualities from the exclusive sphere of the object and brings in the subject as a relational element of art.

The objectivist school affirms that reality is one, it is reflected in true artistic processes faithfully, and that the cognition of the artist is in no essential way different from that of the scientist. That which differentiates art from science is its subject matter. Art treats a particular aspect of reality, it is this sphere of reality that the artist comprehends and preserves in his work. These aspects and spheres are objectively aesthetic, they are beautiful as given. Dealing with the question as to which aspect of reality is aesthetic and forms the topic of artistic endeavors, a leading exponent of this school, Permjakov, writes that all that is aesthetic in reality can be reduced to rhythm, symmetry, harmony, and the balance of parts.[6] Another authority, Egorov[7], asserts that objective beauty is found in organic forms produced by nature which excel by being harmonious, proportionate and symmetrical.[8]

The subjectivist school (as it has been branded by its opponents) has arisen through the discussions created by Burov's work on the aesthetic essence of art.[9] Taking Černyševskij's second criterion, according to which aesthetic qualities are determined by the mind, rather than existing as elements of objective reality, Burov argues that artistic reality is a different kind of reflective process, not identical with scientific cognitions. Burov postulates the specific object of aesthetic reflection, namely all that is *typically human*. He took the daring step (as early as 1956) of stating that reality is symbolically comprehended in art, and that the artist, and through him the public, sees all things as symbols for human life and experience. The beautiful, the tragic, the noble and the comic are not qualities of objects, but rather of the subject, since the object merely symbolizes, and thus reminds the subject of beauty, and of other aesthetic qualities.

Although Burov did not entirely succeed in explaining how such human qualities get into non-human things (for the accepted western theory of symbolists, according to which these qualities are attributed by the subject to the object, contradicts the Leninist reflection theory and could not be upheld by Burov) his great merit is to have been the first to focus attention on the specifics of aesthetic phenomena in Soviet thought.

Burov's work has been followed by the emergence of a progressive school of Marxist-Leninist aesthetics, which has removed the edge from Burov's subjectivism, but refused to align itself with the objectivist theory. The most qualified spokesmen of this school have been Vanslov[10], Stolovič[11], Tasalov[12], and Borev.[13] They managed to circumvent Burov's difficulty with the reflection theory in finding aesthetic qualities by deduction from the objective process of social life. Thus, (unlike Burov) they take for their starting point social existence, and not individual cognition. While they agree that the aesthetic specific of reality is due to objects expressing a content relevant to human life, they attribute these qualities to the objects (i.e. to objective reality) making the presence of the aesthetic qualities independent of the perception of any given individual human subject. The theory is based on the early writings of Marx, more specifically on the philosophical-economic manuscripts, and on the Marxian assertion that man sees himself in a world which he has also created. According to this theory, the anthropomorphized aspects of the environmental world furnish the specific topic of art and aesthetics. Man not only exists, he also sets goals and changes his world. Since man is essentially social ("The human essence is no abstraction inherent in each single individual. In its reality it is the ensemble of social relations" wrote Marx in his *Theses on Feuerbach*) his purposes are fundamentally social in character. Hence the world which he purposively creates is a socially relevant world, wherein objects and events relate to social activity. Those things which promote man's social strivings and help him gain control over nature are inherently beautiful. Since both human, social life, and the objects surrounding man are parts of one encompassing objective reality, aesthetic qualities such as beauty are not dependent upon confrontation by a particular subject (as in Burov's theory) but represent objective elements of reality. Aesthetic qualities are socially objective – beauty exists for socialized man, regardless of whether a hypothetical abstract individual beholds it or not. Beauty, aestheticians of this school

hold, exists together with man and human society, it is in the mastery of nature as one of the fruits of purposive human social endeavor. The laws governing the emergence of beauty are social laws, connected with political and moral criteria. Each society has its own class-ideals of beauty which it incorporates into its artistic production. These ideals also contain universal human motives which are the more significant the more progressive the class. Another great merit of this theory is that it solves the problem of 'socialism' in socialist realism. Since beauty is not considered to be inherent in the direct subject–object relation, but rather in the social relations of persons, beauty need not be delivered in reflection from objective reality to the cognizing subject. While Egorov, and even Burov were constrained to demand that the social nature of the objects and events be discernible in the work of art, the Vanslov-Stolovič theory considers art to be the representation of beauty arising in the course of social life, and assigns collectivism to the process of human existence, i.e. to the collective-subject, and not necessarily to the object represented in art.

The theory has found many new adherents among aestheticians in the Soviet bloc who feel that it provides at last the potential tools for successfully tackling the weighty problems of socialist realism. The theory developed by Vanslov, Stolovič, Tasalov and Borev affords a great degree of logical consistency and continuity with Marxist-Leninist philosophy, accommodating the epistemological, as well as the collectivist tenets within its scheme.

Although some manifestations of art-criticism in the Soviet bloc give the impression that organized drives are under way to bypass the schema of Marxist aesthetics, the serious philosophers among the productive aestheticians are in fact concerned with establishing Marxist-Leninist tenets in the sphere of art, and do not hesitate to bring in fresh arguments to extend the meaning and interpretation of the original formulations. The premisses of realism and socialism are kept, but receive new interpretations, making them better applicable to art and aesthetic phenomena.

The interest of Marxist-Leninist aestheticians for finding the specifics of aesthetic phenomena has made the philosophic theory of socialist realism into an increasingly autonomous discipline, not 'de-classified' from the sphere of competence of the ideology, but developing its own laws and principles through synthesizing deductions from Marxism-

Leninism with analytic inductions from the field of aesthetics itself. The interest in creative aesthetic speculation has been awakened in the post-Stalinist period in the Soviet bloc, and Marxist-Leninist aestheticians do not lack problems nor, it seems, solutions to tackle and to criticize. The effect of Burov's book has been explosive, and out of the conflict of the objectivist and orthodox and the moderately subjectivist and progressive schools, a new kind of aesthetic theorizing is emerging, earmarked by greater competence, an undisguised interest in learning the latest aesthetic trends current in the West, and by a sincere desire to penetrate the complexities of philosophical aesthetics with the conceptual tools provided by the Marxist-Leninist *Weltanschauung*.

Conclusion

For the impartial observer the interesting conclusion comes about that, notwithstanding the conscious fight of Marxist-Leninist aestheticians against bourgeois influences (almost every major aesthetician has written an article 'against' (*protiv*) some aspect or other of bourgeois aesthetics) the new theory of the Vanslov, Stolovič, Tasalov, Borev school arrives at an analogous standpoint with two major western schools: that of Kantianism and phenomenology.

In *Kantian* aesthetics the appreciation of beauty ('aesthetic judgment') arises from the harmony of the object of cognition with the forms of knowledge, signifying the perfect compatibility of Nature and thought (freedom). Natural purposiveness is denied as a necessary attribute of Nature itself, being regarded as an *apriori*, heuristic principle attributed to Nature in order to lend its particular contents meaning and significance. Marxist-Leninist aestheticians would deny that this theory resembles theirs, yet the differences are not great. If we add as axiomatic premiss the social nature of man and his thinking, then freedom arises when Nature provides us with those objects which are compatible with our social strivings. These objects are aesthetic, and represent the fulfilment of the inherent forms of thought through the complementary forms of environmental objects. Thus we arrive at Vanslov's conclusion that beauty is nothing but sensorily expressed freedom.[14] The Hungarian aesthetician L. Garai, has gone even further. He qualified the concept of social purposiveness into a "need for freedom"[15] which he holds to be (1) relatively independent of functions of physical subsistence, (2) the objective need

of the subject, (3) the social need of the individual, and (4) capable of symbolic satisfaction.

The greater the role attributed to purpose in aesthetics, the more we approach a socialistically elaborated type of *phenomenological* aesthetics as well. Purposiveness is deduced by Marxist-Leninists from social existence, rather than from social consciousness. But, the consciousness of the individual must be that social consciousness which he acquires in the course of social existence. When we drop the axiomatic predicates 'social' and 'existence' we arrive at the concept of consciousness filled with outward-directed intentionality. It is this intentional consciousness which feels beauty and the various aesthetic qualities in the world according to their relation to the intentionality (purposiveness) directed toward them. Thus an intimate connection results with phenomenological in addition to Kantian aesthetics.[16]

The approach of socialist aestheticians to major historical trends, firmly established in the West, is a sign of their increasing penetration into the problems of their discipline. Contrarily to views linking particular aesthetic theories to vested interests in corresponding social orders, theories such as Kant's and of the phenomenological school are proposed because they provide one of the very few plausible answers to questions of aesthetics. That socialist aestheticians attain to views similar to their western colleagues testifies to their increasing objectivity in regard to the complex philosophical problems with which they deal.

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THOMAS J. BLAKELEY

TERMINOLOGY IN SOVIET EPISTEMOLOGY

This paper is an attempt to introduce some clarity on the use of philosophic terms by contemporary Soviet philosophers, especially in the domain of theory of knowledge. Since such terms cannot be understood in a vacuum, we will first state a definite point of view on philosophic discourse which will serve as the point of reference for defining Soviet use of the terms in question.

A PHILOSOPHIC POINT OF VIEW

Philosophic discourse makes use of three general classes of statements. In other words, that which philosophers discuss can be distributed into three general problem areas; the *ontological*, dealing with being in terms of 'ideal' and 'real'; the *psychological*, dealing with psycho-physical phenomena in terms of 'matter' and 'spirit' (or 'mind'): the *epistemological*, dealing with cognitive phenomena in terms of 'immanence' and 'transcendence'.

The basic ontological question may be stated as follows: is being exclusively real or exclusively ideal or, if there are both, is there a primacy of some kind of one over the other? 'Real' is that which is in space and time, is changeable, individual and contingent (e.g., a table). 'Ideal' is that which is non-spatio-temporal, unchanging, general and essential (e.g., a mathematical law).

The basic psychological question may be so formulated: is every being material or spiritual (i.e., one or the other); if there are both types, is there a primacy of one over the other? 'Material' is that real being which is – in addition to the above characteristics of any real being – 'corporal', i.e., has bodily existence. 'Spiritual' is that real being which is evidenced through material effects but which cannot be explained by purely material causes. For example, the purely physical make-up of the spoken or written word is not sufficient to explain the transfer of meaning which is effected through it.

The basic epistemological question has to do with an act – that of

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thinking – rather than with entities as is the case in the ontological and psychological domains; more precisely, it deals with the relational status of entities which owe their being such and such (e.g., knower and known, subject and object, mental and physical) necessarily to being included in the cognitive act. It can be formulated as follows; is thought immanent or transcendent; if the latter, is one of the elements (entities) primary in some respect? 'Immanent' means the two cognitive correlates (e.g., knower and known) pertain to the same 'level of being' (in the 'ontological' sense as described above). 'Transcendent' means that they belong to different 'levels of being'.

Thus, on each of the three questions there are four fundamental positions: only the first term; only the second; both, with primacy of the first term: both, with primacy of the second term. In each of the three domains, therefore, there are two 'monist' positions and two 'dualist' positions. In theory, at least, it seems that there could be 'triadist', 'quadratist' and, in general, '*n*-ist' positions. In practice, however, such positions can be and have been reduced to a basically dualist point of view.

The twelve possibilities are as follows ('*m*' subscript stands for 'monist', '*d*' subscript for 'dualist'):

Ontological		
real being	realism$_m$	realism$_d$
ideal being	idealism$_m$	idealism$_d$
Psychological		
material being	materialism$_m$	materialism$_d$
spiritual being	spiritualism$_m$	spiritualism$_d$
Epistemological		
cognitive immanence	immanentism$_m$	immanentism$_d$
cognitive transcendence	transcendentism$_m$	transcendentism$_d$

Only two of the twelve seem *a priori* to be untenable: immanentism$_d$ because, if the two cognitive correlates pertain to the same level of being, the adjunction of dualism implies an 'immanent transcendence' – which

is contradictory. On a similar basis, transcendentism$_m$ is to be eliminated.

Any such system of classification will falsify by over-simplification. But, the procedure is justified to the extent that this system of terms provides an unambiguous frame of reference in which contemporary Soviet philosophy in general and its theory of knowledge in particular can be compared to other philosophic systems, past and present.

THE SOVIET VIEW

Contemporary Soviet philosophy and its theory of knowledge has four basic classification-terms which are available for the characterization of all possible philosophic systems; 'idealism', 'materialism', 'dialectical', 'metaphysical'.

1. *First Principle*

All philosophers, philosophies, philosophic opinions, etc., are basically idealist or basically materialist. Although there have been some philosophers who 'oscillated' between materialism and idealism, any efforts to reconcile the two views or to find a 'third path' ('above' the distinction between materialism and idealism) must necessarily end in idealism.

1.1. *Idealism* is the philosophic view which affirms the primacy of soul, idea, consciousness, the subjective.

Among the other statements characterizing idealism as a whole, we find: it is a refined form of religion; it is an impediment to science; it is irreconcilable with materialism in general and with dialectical materialism in particular. From this last trait, follows a series of more specific characteristics of idealism (e.g., exclusion of work as an epistemological category, denigration of sense-knowledge, etc.).

There are three main species of idealism.

1.11. *Subjective idealism* is the philosophic view which to the doctrine on the primacy of the soul, etc., adds the affirmation that the object of knowledge (the known) is ideal and located within the knower.

1.12. *Objective idealism* is the philosophic view which to the doctrine on the primacy of the soul, etc., adds the affirmation that the object of knowledge is ideal and is located outside the knower as a reified projection of the knower's consciousness. In both definitions 'ideal' means 'created by the knowing subject'.

1.13. *Masked idealism* is the philosophic view which refuses the distinction between idealism and materialism as fundamental and, above all, refuses to let itself be classified as one or the other.

There are three major forms of 'masking': (1) the restriction of philosophic enquiry to epistemological questions so as to avoid having to make the ontological and psychological decisions which would necessarily imply – according to Marxism-Leninism – either idealism or materialism; (2) the relegation of idealism to the category of super-annuated philosophic doctrines, whence it is inapplicable today; (3) the search for the 'third path' rising above the distinction between materialism and idealism. Basic to all forms of 'masking' (in the current Soviet interpretation) is the refusal to answer the 'basic question of all philosophy'; a refusal which automatically liberates the 'creative ability' of thought from its material 'envelope' and, therefore, leads to one or another form of idealism.

Each of these types of idealism can be individualistic, pluralist or collectivist; sensualist, rationalist or irrationalist; absolute, monistic, panlogistic, voluntarist, etc.

1.2. *Materialism* is the philosophic view which affirms the primacy of matter, nature, objective reality.

Since it is in complete opposition to idealism, materialism is fully antagonistic to any form of religion and is the philosophic basis of genuine science. In defining the various species of materialism, the time-factor is of some importance. There are three major forms of materialism.

1.21. *Mechanicist materialism* is the philosophic view which in affirming the primacy of matter, etc., over soul, etc., reduces all complex phenomena (including soul, etc.) to the mechanical (local-motion) combination of homogeneous material particles.

This is 'pre-Marxist' or 'metaphysical' materialism which has been superseded by 'Marxist' or 'dialectical' materialism.

1.22. *Dialectical materialism* is the philosophic view which in affirming the primacy of matter, etc., over soul, etc., refuses the mechanicist reduction and recognizes the fundamentally dialectically structured nature of a reality in constant evolution.

1.23. *Vulgar materialism* is the philosophic view which maintains the basic doctrines of mechanicist materialism despite the essential corrections made in this last by Marxism-Leninism.

The time-factor in the distinction between the two versions of non-

dialectical materialism also conditions contemporary Soviet attitudes toward these two views. The mechanicists are generally treated with paternal benevolence: they were in invincible ignorance since Diamat had not yet been discovered. The vulgar materialists, on the other hand, are worthy only of contempt since they are in vincible ignorance of the true, dialectical-materialist, explanation of reality.

2. *Second Principle*

All philosophers, philosophies, philosophic opinions, etc., are basically metaphysical or basically dialectical. Exception to this rule is formed by a small number of metaphysical systems which have contained 'elements' or 'traces' of dialectic.

2.1. *Metaphysics* is the philosophic point of view which eliminates motion, artificially abstracts from the real relations between real things, and separates the ideal from the real.

Seen in the light of the evolution of the use of the term 'metaphysics' in the history of philosophy, dialectical-materialism's almost exclusively methodological interpretation of it seems directly due to Kant. Thus, for Aristotle's editor it meant 'beyond physics'; for the scholastics, 'on being *qua* being'; for Locke, 'on extra-sensory reality'; for Humean neo-positivism, 'on extra-experiential (senseless) questions'; finally, for Kant, 'on futile manipulation of vacuous cognitive categories'. This would explain the fact that metaphysics appears in the writings of contemporary Soviet philosophers almost exclusively as a way of viewing reality rather than as a doctrine on the real (ontological) constitution thereof.

2.2. *Dialectic* is the philosophic view which affirms that reality is in constant motion (as described by the 'basic laws of the dialectic'), that its components are all inter-related, and that all bipolar aspects of reality (like real and ideal) are complementary.

Like metaphysics, this term has a long and venerable tradition from which the dialectical-materialist meaning seems to be directly derived. For the ancients – especially the Socratics – dialectic was 'discursive argumentation through counterposition'; for some historians of philosophy Abelard's *sic et non* and Nicholas of Cusa's *coincidentia oppositorum* continue the tradition; finally, for Hegel the dialectic constitutes both a mode of being and a mode of thought and it was from him that the classics took it as a component of dialectical materialism. Again,

the Hegelian idealist origin of the dialectic in dialectical materialism offers an explanation for the fact that its main significance has been – at least up to very recently[2] – as a way of viewing reality.

From these definitions, contemporary Soviet philosophers draw up a classification scheme with four basic elements: subjective idealism, objective idealism, mechanicist materialism, and dialectical materialism. In cross-classification through designation as either metaphysical or dialectical, since mechanicist materialism is necessarily metaphysical and dialectical materialism necessarily dialectical, the resultant philosophical systems are: metaphysical subjective idealism, dialectical subjective idealism, metaphysical objective idealism, dialectical objective idealism, mechanicist materialism, dialectical materialism.

For most of these systems it is easy to point out the correspondence to the terminology which we established in the first section.

Metaphysical subjective idealism = idealism_m + spiritualism_m + immanentism. Explanation: the subject – itself a 'bundle of sensations' or the like – creates its material counterpart and the object of knowledge.

Dialectical subjective idealism = idealism_m + spiritualism_m + immanentism. Explanation: dialectical subjective idealism differs from the metaphysical variety of subjective idealism only by the injection of the dialectic. But, as long as everything is created by the subject, dialectic can only mean a mode of thought – which provides a pseudo-dualism but no essential difference.

Metaphysical objective idealism = idealism_m + spiritualism_m + transcendentism. Explanation: the idealism_d and spiritualism_d of the metaphysical objective idealist are only an apologetic 'front' since, in the end, he holds that the real is created by an ideal being (e.g., God) and that only the 'spiritual forms' of matter are real (intelligible). This leaves only the transcendent theory of knowledge to distinguish him from the metaphysical subjective idealist.

Dialectical objective idealism = idealism_m + spiritualism_m + transcendentism. Explanation: as in the case of dialectical subjective idealism, the injection of the dialectic only adds a mode of thought and the resultant is a pseudo-dualism.

Mechanicist materialism = realism_m + materialism_m + immanentism.

Dialectical materialism = realism_m + materialism_m + transcendentism. Explanation: dialectical materialism differs from mechanicist ma-

terialism only in that the former does not permit a simple reduction of complex phenomena (especially the cognitive function) to a mechanical combination of homogeneous particles.

Several conclusions follow from this schematization:

(1) Diametrical opposition exists between dialectical materialism and metaphysical subjective idealism;

(2) Dialectical materialism does not admit the existence of any form of dualism. All forms of dualism contain a refusal or failure to accept and answer the 'basic question of all philosophy' and, therefore, are surreptitious efforts to find a 'third path';

(3) All of these philosophical systems – with the exception of dialectical materialism – are ultimately reducible to metaphysical subjective idealism and, therefore, are all diametrically opposed to dialectical materialism; as follows. Dialectical subjective idealism differs only verbally from metaphysical subjective idealism. Both metaphysical objective idealism and dialectical objective idealism are distinguished only by their transcendent interpretation of knowledge. Since, however, the object of knowledge is a reified projection of the knowing subject, both doctrines are ultimately forms of subjective idealism. In addition, dialectical objective idealism is really not dialectical; so that the reduction finishes in metaphysical subjective idealism. The situation of mechanicist materialism is somewhat more complicated but the central point is its explanation of knowledge. If knowledge is explained as the purely mechanical interactivity of material particles – thus in effect renouncing to a philosophical theory of knowledge – philosophy is eliminated and agnosticism set in; a sure sign of metaphysical subjective idealism. If, on the contrary, the philosophical explanation of the rest of reality is anthropomorphically re-interpreted to admit a genuine theory of knowledge, the 'idealization' and 'spiritualization' typical of metaphysical subjective idealism are the result.

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NOTES AND COMMENTS

HUNGARIAN COMMENTS ON LASZLO'S AESTHETICS

As reported in *SST* March, 1964 (pp. 66–67) this writer's lecture on aesthetics, delivered in Budapest on November 15, 1963, has been reprinted in *Valóság*, Budapest, under the title 'Az intencionalitás szerepe az esztétika elméletében' (The Role of Intentionality in Aesthetic Theory). Several comments were expected to be forthcoming from Hungarian aestheticians, and two of these have already been published. One is by István Eörsi, a noted aesthetician and writer, translator of Lukács' works on aesthetics (from the original German), in the 1964, 4 issue of *Valóság*, and the other by Mihály Vajda, one of the foremost Hungarian exponents of current western philosophy, in *Valóság* 1964, 5.

Eörsi's article is entitled 'Az intencionalitásról; hozzászólás László Ervin tanulmányához' (On Intentionality; Comments on Ervin Laszlo's Study). Herein Eörsi makes a detailed and critical review of the function of "intentionality" in systematic aesthetics, but does not contest that "intentionality" functions in phenomenology analogously to "socialist purposiveness" in Socialist Realism – a point I was concerned to make in my paper.

Vajda calls his commentary 'Intencionalitás és visszatükrözödés' (Intentionality and Reflection) and objects to the analogy "intentionality – purposiveness" on grounds of the incompatibility of the respective theories of knowledge of Marxism-Leninism and transcendental phenomenology. As regards aesthetics, Vajda finds on the other hand, that "intentionality" has been an implicit component in Marx's thought when phenomenology was not even born yet. Both Eörsi and Vajda express their appreciation that this particular problem-complex has been raised. Vajda points out that despite the fact that phenomenology is gaining steadily more and more adherents in western philosophic circles, it is almost entirely ignored by Hungarian thinkers. No translation into Hungarian exists of the works of Husserl and his followers, and aside from Lukács, no Hungarian philosopher has undertaken a comprehensive criticism of the phenomenological movement.

The above cited three articles form the first series of discussions on phenomenology in post-war Hungary. Judging from the amount of at-

tention this discussion has elicited, more commentaries are likely to be forthcoming. *E. Laszlo*

FRESH DATA ON THE 'LUKÁCS PROBLEM'

George Lukács, the most widely known of Hungarian Marxist-Leninist philosophers, branded revisionist and fallen from grace since 1956, has been a source of constant headache to the intellectual leaders of Hungary. For Lukács' fame, like that of Cardinal Mindszenty, did not diminish during his banishment from public activity. In light of the liberal notions propagated in several sectors of Hungarian culture, the reasons for branding Lukács a 'revisionist' appear to many to be increasingly spurious. Recent developments concerning Lukács testify to the intense, but largely covert struggle that is being fought for and against his rehabilitation. Some relevant data:

December, 1963: Lukács writes in *Forum* (Vienna) that a rigid and merciless anti-bolshevism that refuses to take notice of changes in the life and thought of Soviet-bloc nations merely serves to reinforce Stalinism.

December 18, 1963: Ádám Wirth, secretary of the philosophical collective of the Hungarian Workers' (Communist) Party sharply attacks Lukács for orienting himself, despite some positive elements in his thinking, toward the conception and program of universal democracy, as opposed to class-struggle and the revolution of the proletariat, and carrying these ideas over into his philosophy.

March, 1964: A lead-article of the *Magyar filozofiai szemle* (Hungarian Review of Philosophy) echoes these charges at considerable length. At the same time *Valóság* (Reality) brings a detailed study by Ágnes Heller (a Lukács pupil who fell with her master) on 'prejudice' announcing that it is a fragment of an extensive work which, to all appearances, contains references to Lukács' works which are reminiscent in number and content to the heyday of Communist quotatology. Shortly hereafter Lukács publishes an article in the official literary journal of the ČSSR condemning Stalinism for throwing socialist development half a century out of gear, and asking for freedom of opinion and research. (The CC of the ČSSR criticized the editors only for not mentioning that Lukács is considered a revisionist in Hungary.)

April, 1964: western sources report that Lukács would attend

UNESCO's conference on existentialism in Paris, and Lukács was reported to have already arrived in that city. But he never left Budapest after all; shortly before the opening session Lukács called UNESCO to, say that he did not feel well, believed that the long trip would not do him good, and was loth to interrupt work on an important study. He also declined sending the paper he was to have read. *E. Laszlo*

EINE REDE BOHRS IN DUBNA

Die *UFN* brachten 1963 zwei Würdigungen die den Fortschritt der sowjetischen Haltung gegenüber früheren ideologischen Gegnern kennzeichnen: Zum Todestag von Niels Bohr, der ja bis etwa 1957 von der orthodoxen Philosophengruppe als "Positivist" und "Idealist" angegriffen wurde, erschienen: J. E. Tamm: 'Niels Bohr, ein großer Physiker des zwanzigsten Jahrhunderts' (*UFN* 80 (1963), 2, 191–195); E. L. Fejnberg: 'Leben und Tätigkeit von Niels Bohr' (a.a.O. 197–205); V. L. Ginzburg: 'Zum Gedächtnis Niels Bohrs' (a.a.O.). M. Lebedenko berichtet a.a.O. 251–254 über die Zusammenarbeit mit Bohr. Bohr unterhielt schon lange engen Kontakt mit sowjetischen Gelehrten. Er las wiederholt in Moskau und Leningrad. Auf seine Initiative geht eine aktive wissenschaftliche Zusammenarbeit zwischen dem Vereinigten Kernforschungsinstitut in Dubna und dem Institut für Theoretische Physik in Kopenhagen zurück. Außer einem Informationsaustausch kam es auch zu einem Austausch von Wissenschaftlern; so arbeiteten bei Bohr vier Physiker aus Dubna. Vom Institut für Theoretische Physik in Kopenhagen ist zur Zeit Ens Bang in Dubna. Bohr selbst war am 10. Mai 1961 mit seinem Sohn in Dubna. Gleichzeitig fand dort die Internationale Konferenz über die Theorie schwache Wechselwirkungen statt (an der soweit nur Ostblock-Vertreter teilnahmen). Als Bohr während der Konferenz erschien, kam es zu einer "stürmischen Ovation". Die Teilnehmer begrüßten stehend den weltbekannten Gelehrten. Als die langanhaltenden Beifallskundgebungen endlich verstummten, hielt Bohr eine kurze Rede. Er sagte: "Ich bin Ihnen für Ihre Gastfreundschaft sehr dankbar. Es ist eine große Ehre, das Vereinigte Kernforschungsinstitut zu besuchen, wo so bedeutende Gelehrte arbeiten. Ich werde nicht von den Problemen sprechen, an denen man hier arbeitet. Ich will diese Möglichkeit benutzen, um die Arbeit kennenzulernen, die hier geführt wird und Eindrücke von diesem großen

Institut zu erhalten. Es war wirklich ein Ereignis, daß ich vor 50 Jahren die Geburt der Kernphysik beobachten konnte. Mir wurde das Glück zuteil, damals zu einer Gruppe von jungen Gelehrten aus vielen Ländern zu stoßen, welche von Rutherford begeistert waren. Ich fuhr nach Manchester nur einige Monate nach der Entdeckung des Atomkerns. Es ist beinahe unmöglich, von jenem Unterschied zu sprechen, der zwischen der physikalischen Wissenschaft jener Zeit und der Wissenschaft unserer Tage besteht. Dort wo man früher mit sehr primitiven Geräten arbeitete sind jetzt dank der Entwicklung der Technik so komplizierte Anlagen geschaffen, wie man sie in Ihrem großen Institut findet. Es ist erstaunlich zu sehen, wie anstelle von sehr einfachen theoretischen Mitteln in unseren Tagen eine großartige mathematische Technik entstand, welche so großes Wissen anzusammeln erlaubte.

Die Entdeckung des Atomkerns stellte die theoretische Physik vor schwierige Probleme, da es unmöglich war, die neu gesammelten Tatsachen von den physikalischen und chemischen Erscheinungen zu erklären, indem man von dem Rutherford-Modell des Atoms ausging, d.h. mit den einfachen klassischen Vorstellungen. Man konnte aber hoffen, die Ausgangsdaten für einen allmählichen Prozeß zu gewinnen.

Eine der wichtigsten Besonderheiten des darauf folgenden ungewöhnlichen Fortschritts war die große Rolle der internationalen Zusammenarbeit. Es war eine Zusammenarbeit von ganzen Physikergenerationen, von Theoretikern und experimentellen Physikern. Allmählich klärten sich Jahr für Jahr die wesentlichsten Fragen. In unserem kleinen Lande Dänemark, gerade deshalb, weil es klein ist, gibt es eine gute Tradition: Auf jede Weise die Zusammenarbeit zu fördern und die wissenschaftliche Information zu sammeln. Auch wir gewannen einen großen Nutzen von der Zusammenarbeit mit den größten Physikern verschiedener Länder und darunter auch mit den hervorragenden Gelehrten der Sowjetunion. Mir ist besonders angenehm jene Zusammenarbeit, die in den letzten Jahren mit den jungen Physikern hergestellt wird. Es war mir sehr angenehm, in Kopenhagen sehr fähige sowjetische Physiker kennenzulernen, die in unseren Gruppen arbeiteten und einen Beitrag zur internationalen Zusammenarbeit leisteten.

Wir sehen in der internationalen Zusammenarbeit große Möglichkeiten der Arbeiten zur Klärung der Eigenschaften der Natur, die uns umgibt. Die Zusammenarbeit der Gelehrten ist der effektivste Weg zur Zusammen-

arbeit der Nationen. Damit hängen Aufgaben zusammen, die mein Sohn und ich uns stellten bei unserem Besuch der physikalischen Institute Ihres Landes und vor allem dieses Instituts. Wir möchten der internationalen Zusammenarbeit dienen und die damit zusammenhängenden Probleme erörtern.

Es bleibt mir nur noch einige Worte an die Mitarbeiter dieses großen internationalen Instituts in Dubna zu richten. Ich möchte noch einmal für den herzlichen Empfang danken, der mir hier erwiesen wurde und von jenem Vergnügen sprechen, das ich in Ihrer Mitte empfinde."*

Bohr besuchte anschließend das Laboratorium für Neutronen-Physik. Bohr war von der ungewöhnlichen Kompaktheit des Impuls-Reaktors schneller Neutronen in Dubna begeistert. Dšelepov zeigte Bohr das Synchrozyklotron, das Protonen auf eine Energie von 680 MeV beschleunigt und zu einer Zeit konstruiert wurde, als es ähnliche Beschleunigungsmaschinen nirgends gab. Als Veksler Bohr das Synchrophasotron demonstrierte, sagte Bohr: "Eine große Verstandesschärfe und Courage waren zur Projektierung und Schaffung einer solchen Maschine nötig." Das Gerät machte auf ihn einen riesigen Eindruck, er hatte sich früher nicht vorgestellt, daß man eine so gewaltige Maschine konstruieren kann. In seinem Interview für das sowjetische Kino sagte er wörtlich: "Einen besonders tiefen Eindruck machten auf mich die großartigen, gigantischen Geräte. Ihre Projektierung und Herstellung forderten ein Eindringen in das Wesen der Dinge selbst und ich würde sogar sagen, forderten Mut. Ich sehe, mit welcher Begeisterung hier viele hervorragende Gelehrte arbeiten, die Forschungen durchführen, um fundamentales Wissen von der Struktur der Materie zu erzielen." Lebedenko fügt hinzu, daß die Bewohner von Dubna für immer sich an den Besuch Bohrs erinnern werden.

WÜRDIGUNG FRIEDMAN'S

Vielleicht noch symptomatischer als die öffentliche Würdigung Bohrs ist die Herausgabe eines Jubiläumsheftes der *UFN* zum 75. Geburtstag des Schöpfers der Theorie des expandierenden Kosmos, des sowjet-russischen Meteorologen Alexander Friedman (*UFN* 1963, 80, Heft 3, Juli) mit Beiträgen von Fock, Zel'dovič, Lifšic und Chalatnikov sowie den Original-

* Übersetzt nach der russischen Übersetzung der Tonband-Niederschrift des Vortrags von Bohr.

arbeiten Friedmans zur Expansionstheorie. Nach Zel'dovič war Friedmans Arbeit die erste und einzig richtige Anwendung der allgemeinen Relativitätstheorie auf die Kosmologie. Sie sagte ein grandioses Phänomen voraus, das die Größenordnung des Sonnensystems um Milliarden übertrifft. Es handelt sich um eine große wissenschaftliche Tat und die Grundlage der ganzen modernen Kosmologie. Ihre Schlußfolgerungen auf die Vergangenheit des Alls sind eindeutig: Heute liegt eine Expansion vor, die Dichte war also früher grösser. Bei einer Inertialbewegung ist der reziproke Wert der Hubble-Konstanten gerade die Zeit, die seit dem Augenblick einer unendlichen Dichte vergangen ist. In der Friedmanschen Theorie ist der Schluß auf die Existenz dieses Augenblicks unvermeidlich. Die Friedmansche Theorie wird nun seit 40 Jahren geprüft, dies ist soviel Wert wie früher einige Jahrhunderte. Die Theorie ging daraus gestärkt hervor. Die Beobachtungen bestätigen die Tatsache des nicht-stationären Zustands des Alls als solches. Ruhmlos versanken die wiederholten Versuche in der Versenkung, die Rotverschiebung der Spektrallinien durch irgend eine andere Weise zu erklären. Es liegen die Theorien in Agonie, welche die Fluchtbewegungen der Nebel mit der voreingenommenen Idee der Stationalität kombinieren wollen unter Verzicht auf alle Gesetze der Physik. (*UFN* a.a.O. 389–390). *S.M.M.*

PHILOSOPHISCHE VERÖFFENTLICHUNGEN 1964

Der Verlag "Nauka" bereitet 30 Werke über Philosophie und wissenschaftlichen Atheismus vor, darunter den Sammelband: *Dialektik, die Erkenntnistheorie. Probleme der wissenschaftlichen Methode; Die formale Logik und die Methodologie der Wissenschaft; Probleme der Logik der wissenschaftlichen Erkenntnis; Über das Wesen des Lebens;* Novinskij, I. I.: *Über die Dialektik der lebendigen Natur;* Gornštejn, E. N.: *Die Philosophie von N. Hartmann,* die eine Kritik seiner Naturphilosophie enthält. Der Verlag "Mysl'" gibt heraus *Probleme des Denkens in der modernen Wissenschaft; Kybernetik, Denken, Leben* (Materialien der Kybernetik-Konferenz in Moskau 1962) sowie eine erstmalig in Rußland erscheinende Gesamtausgabe von Hume. Der Verlag "Politizdat" veröffentlicht unter anderem eine Neuauflage der *Osnovy marksistskoj filosofii.*

S.M.M.

In *Referativnyj Žurnal, Fizika* (1964, März, Nr. 3, B 9) gibt P. Kard eine kurze Wertung von V. P. Branskij's *Filosofskoe značenie problemy nagljadnosti v sovremennoj fizike* (Izd. LGU, 1962): Die Hypothese des ontologischen Nicht-Geozentrizismus, wonach die Kenntnis des universalen Inhalts der Materieattribute vom Entwicklungsniveau der Praxis abhängt und sich mit ihm verändert, ist zwar problematisch, aber vom Verfasser gut begründet; die darauf beruhenden seltsamen Schlüsse widersprechen nicht den allgemeinen Prinzipien des Diamat. (S. Besprechung in *SST* III (1963) 191–201). *S.M.M.*

CRITICS OF BOURGEOIS PHILOSOPHY

The pamphlet of A. S. Bogomolov; *Kritika sovremennoj buržuaznoj filosofii* (M., Gospolitizdat, 1963, 477 pp., *tiraž* 70000) belongs to the series '*Metodičeskie sovety po filosofii*'. It is not another pamphlet against "bourgeois" philosophers, but a programmatic writing purporting to show how the criticism of non-Communist philosophy should be conducted. It is highly instructive as such, because it supplies information about what an average Soviet philosopher knows and how he understands non-Communist thought. It should be read by everybody interested in that subject. Another interesting aspect is the list of books recommended. Alongside with the unavoidable Lenin, the "Programma" plus L. F. Il'ičev and the various "Osnovy" we find the following titles quoted in the list:

Aseev, Ju. A. i Kon, I. S.; *Osnovnye napravlenija buržuaznoj filosofii i sociologii XX veka.* Izd. LGU. 1961.

Byxovskij, B.: *Osnovnye tečenija sovremmennoj idealističeskoj filosofii.* Izd. "Znanie". 1957.

Ojzerman, T. I.: *Osnovnye čerty sovremennoj buržuaznoj filosofii.* Izd. "Znanie". 1960.

Sovremennyj sub''jektivnyj idealizm. Gospolitizdat. 1957.

Garodi, R.: *Otvet Ž.-P. Sartru.* M. (no publishing house quoted, probably IIL). 1962.

Danëm, B.; *Čelovek protiv mifov.* M. IL (= IIL). 1961.

Kornfort, M.; *Nauka protiv idealizma.* M. IL (= IIL). 1957.

Narskij, I. S.; *Očerki po istorii pozitivizma.* Izd. MGU. 1960.

Ojzerman, T. I.; *Neotomizm-filosofija sovremennoj reakcjonnoj buržuazii.* Socekgiz. 1959.

Čagin, M.: *Filosofija otčajanija i straxa.* Gospolitizdat. 1962.
Bogomolov, A. S.: *Istorija buržuaznoj filosofii epoxi imperializma.* Izd. MGU. 1962.
Gejden, G. G., Kleijn, M. i Kozing, A.: *Filosofija prestuplenija.* (no publishing house, probably IIL) 1962.

J. M. Bocheński

FROM WESTERN LITERATURE

Professor L. A. Feuer reports in *Survey* (51, 1964 (April), 10–23) on his 'Meeting the Philosophers'. He spent 4 1/2 months in Moscow, lectured there and met up to 150 philosophers. The author says, that there are three main trends among younger philosophers: scientific realism, existentialism and pragmatism (p. 13) – neither positivism nor Hegelianism are mentioned. He coins a new term "protivism" (from "*protiv*", "against", p. 16). Official Soviet philosophy is dominated, according to him, by protivism. The general outlook is moderately pessimistic. *J.B.*

A. Wat writes in 'La mort d'un vieux bolchévik' (*Le Contrat Social* 7, 1963 (6), 325) about his companions in a prison in 1941; "(there was) un microbiologiste soviétique, dont l'unique crime était d'avoir pour violon d'Ingres la logistique, ce dont n'étaient au courant que quatre ou cinq amis sûrs." He does not give the name. The victim was transferred with the author in 1941 from Lubianka to a prison in Saratov. Two conclusions: in 1941 (1) one interested in mathematical logic had to conceal his interests, (2) when discovered he went to prison. Could Mr. Wat himself or perhaps one of the Soviet scholars tell the world who was that logician suffering prison and deportation for logic? *J.B.*

Die westliche Literatur zur sowjetischen Philosophie wurde durch ein wichtiges Buch bereichert: Helmut Dahm, *Die Dialektik im Wandel der Sowjetphilosophie* (Verlag Wissenschaft und Politik, Köln. 1963. 152 S.).

Der Autor untersucht in seinem Buch, wie die Dialektik als das Grundprinzip der sowjetischen Philosophie in den verschiedenen Teilen und Problemen dieser Philosophie durch die neueren Entwicklungen gefährdet und wie zugleich in einer Art Glaubenshaltung an ihm festgehalten wird. Das wird in einzelnen Gebieten der sowjetischen Philosophie, wie Anthropologie, Erkenntnistheorie und Ontologie nachgewiesen. Besonders

schwerwiegend sind die Fragen, welche die Naturwissenschaft an die Philosophie und das Dogma stellt.

Das Buch beeindruckt vor allem durch den ungeheuren Reichtum an erschlossenem Material und durch die Menge der (z.T. höchst spekulativen und schwierigen) behandelten Fragen. *K.G.B.*

Kosík, K.: *Dialektika konkretního – Studie o problematice člověka a světa* (Dialectics of the Concrete – A Study on the Problem of Man and the World). Praha, Nakl. ČSAV. 1963. 191 pp.

This is truly an unusual book, comparable only to classic studies such as G. Lukács' *Geschichte und Klassenbewußtsein.* If, since World War II, there has been a Marxist-Leninist publication likely to persuade Western philosophers that Marxism-Leninism ought to be taken seriously, then this is the book.

No propaganda. No trivialities. No sentence asserted because of the statement of a "Classic". Nothing of the shallow pseudo-clarity and of the scientism characteristic of so many Marxist-Leninist works; and very little of the muddled characteristic of Marxist-Leninist writings trying to stay close to, or rather to return to, Hegel. A book difficult to read, it is true; at times even difficult to understand. But, after all, it is a work by a *Hegelian* Marxist such as Lukács, Kojève or Adorno. With the difference that, contrary to the authors just mentioned, Kosík is perfectly familiar with, and to some extent influenced by, the existentialism of Heidegger, Abbagnano, Merleau-Ponty. Many passages sound like Marxist transcriptions of *Sein und Zeit*; and many a passage reminds one of Sartre's latest work, *Critique de la raison dialectique.* Still, it is a book by a Marxist-Leninist, not by an existentialist; if it ever comes to be censured as "revisionist" (in 1959, Kosík was accused of "Hegelian revisionism"), it will be because Communist officials dislike whatever is beyond their intellectual capacities, not because the ideas advanced in Kosík's book are opposed to the basic Marxist-Leninist creed. Kosík's use of an existentialist terminology ("care", "everydayness", "three-dimensionality of human time") is neither a revolt against Communist ideas nor a cheap device of an author eager to create a sensation; the author believes that this terminology is "an idealistico-romantic, i.e. a deciphered and dramatizing transcription of revolutionary materialistic concepts" (58). Kosík's secret, to use an old Christian expression, is the *exspoliatio Aegyptiorum*: he harvests whichever of the fruits of non-Marxist thinkers he likes, trying in each case to show that Marxism-Leninism rather than positivism or existentialism is the legitimate harvester. And, I have to add, he does it well. There are few books which succeed so well in underpinning the claim that Marxist-Leninist philosophy is the natural outcome of, and the culmination of, the history of philosophy since the Renaissance.

The book is divided into four parts: "Dialectics of the Concrete Totality", "Economy and Philosophy", "Philosophy and Economy", "Practice and Totality". As an introductory note states, these four parts are trying to convey one main idea which emerges only if one reads the whole book.

Though it is difficult to express it in a few lines, it is clear what this main idea is. As the sub-heading states, the book is concerned with the relation be-

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tween Man and the World. Actually, it would seem to be concerned with the tri-polar relation between Man, History and Nature; but Kosík consecrates a lengthy passage (53ff.) to the proof that History is not distinct from man's "everydayness" and that, consequently, it cannot be taken as something independent of Man in his relation to Nature. Reality, then, is Man and Nature: "Reality is not (authentic) reality without man, just as it is not (only) man's reality. Reality is both the reality of nature as absolute totality independent of man's consciousness, indeed of his existence; and the reality of man who, in nature and as its part, shapes the socially human reality transcending nature and defines for himself his position within the Universe" (172).

In terms of this vision which seems radically opposed to Engels' naive objectivism usually inspiring Marxist-Leninist writers, Kosík criticizes both the Kantian-existentialist conception that all philosophy ultimately is anthropology, and the positivist tendency to consider "philosophical anthropology" only as a complement to a philosophical study of things. Both are false extremes: "on the one hand, the conception according to which reality is man's reality and the world only is a human project; on the other hand, the conception according to which the world is authentic and objective only in so far as it is conceived as a world without man" (171). In short, Kosík defends the conception developed in Marx's *Manuscripts* according to which reality is an organic process in which man realizes himself by becoming "natural" and nature is unfolded by man and becomes "human": "the *Sache selbst* which occupies philosophy is ... the totality of the world unveiled by man in history and man as existing in the totality of the world" (173).

This is the conclusion to which the whole book would seem to lead. It seems to be an answer to three questions which constantly return as the unbroken thread of Kosík's study: What is really real? How does one reach the really real? What is man's share in the really real?

What is reality? Kosík answers: it is a Concrete Totality, i.e. a structured, developing, and self-shaping, whole; not a mere sum of facts (33ff.). And as it is a "structured, dialectical whole in which, and in terms of which, whatever fact or group of facts may be rationally understood" (29), man is capable of a sort of Total Knowledge even if he cannot grasp all factual details of reality. This totality can be neither reduced to, nor isolated from facts; in the first case, we end at an atomistic rationalism such as that of Descartes or Wittgenstein, in the second case, we are left with a holistic organicism such as that of Schelling or O. Spann in which each fact is determined in advance and can be anticipated. As opposed to this, Kosík claims that reality is a system, the unity of which is guaranteed only by its historical continuity, not by eternal laws or by an underlying substratum or by unchanging ultimate elements; "reality ... is the inner relation, the dynamics, the being opposed, of facts" (38). And, following Hegel, he adds: "the genesis and the development of Totality belongs to its very determination" (40).

How do we reach this reality? By dialectics and by revolutionary practice.

The secret of the dialectical method consists in that it does not believe in things as they appear; its task consists in discovering behind, or rather in, the appearances which are a product of our "practico-utilitarian dealing with things" (10), the true essence. The world as it appears is a world of "pseudo-concreteness" (11): a world of petrified reflections of definite historical conditions in man's mind (14). The task of dialectics is to destroy this pseudo-concreteness in order to reach the Concrete – a process "in which underneath the world of semblance emerges the true world" (15).

What exactly is this "world of pseudo-concreteness"? It is the world of man's own products which he does not recognize as such. In the second section, Kosík tries to exemplify what he means. In everyday life, man appears to himself as a being the very essence of which it is to be interwoven with a world of equipments and settinsg which are both cared for by, and caring for him; he is "care" (the expression would seem to correspond to Heidegger's '*Besorgen*' rather than to '*Sorge*'). Thus, in everyday life, man is pure subjectivity; the world is a project to manipulate and to be manipulated by. In the world of reason and science, on the other hand, man makes himself a part of a purely objective world; he becomes a part of a world of things, a *homo oeconomicus* who creates a world of technology the human sources of which he is unable to grasp (whereforeq he completes his one-sided rationalism by various forms of irrationalism). If he understands that he is dependent upon economic *Gesetzmäßigkeiten*, he worships them as objective causes. In no case does he realize that the world of care, the world of objective science and technology, the world of economic *Gesetzmäßigkeiten* is a product of his own practice, not of human nature or of natural laws. He petrifies and hypostatizes the "historically sliding limits of human knowing and shaping reality" (73), he overlooks the "central significance of practice and labour for the making of human reality" (82).

What is admirable in this second section is that Kosík does not treat Heidegger's "philosophy of care", the rationalism of the *homo oeconomicus*, M. Weber's theory of the "economic factor", etc., as false ideologies competing with the only true ideology, Marxism-Leninism. He is perfectly aware that all these ideologies are true at least in a certain sense. His point is that the truth which they reveal is not a necessary one, that it originates from human practice which, therefore, can do away with them.

We are again back at the beginning: the only reality is Man and Nature both of which can be shaped by man. There are no eternal laws except those of Nature which man can master and use; all other laws – especially laws stating that man is this or that, that his society is such and such, that his relations to Nature are of this kind or that – are products of his own practice, sediments of his own action; they are *his*. Therefore, the ultimate answer to all ideologies is revolutionary practice which Kosík describes as the "process of the humanization of man" (17) and which, following Hegel and Marx, he identifies with man's transcending of Nature by dominating it. This humanization of man is the only meaning of history: "in history, man unfolds himself – and this his-

torical unfolding which is equal to the shaping of man and his humanity, is the only meaning of history" (164).

I have to restrict myself to these few remarks, leaving out a number of other highly important, and brilliantly formulated, ideas (incidentally, the third section contains an analysis of the relation of economy and philosophy in Marx's *Kapital* which outdoes everything written by Marxist authors up to now). And I want to restrict myself to only one criticism. The world which Kosík describes is that of Hegel and Marx; a world in which only humanity, not man, counts. Of course, Kosík stresses that the destruction of pseudo-concreteness and the shaping of human reality is also an "ontogenetic process": each individual has to appropriate his culture and to live his life *alone* and *irreplaceably*" (17). Still, it remains true that the only meaning in history is the self-realization of humanity. As to myself, my only meaning is to contribute to, and to share in, this "explanation of man". But does not each individual desire more? Does the future of humanity compensate for *my* sufferings? Does the humanization of man fulfil *me* who have to die? To speak this way is not egoism. At least, I do not believe so. For you and me, past, present, or future, are in the same situation. Does the sum total of suffering, dying, unredeemed, men make up a meaningful whole? Indeed, is the whole truly meaningful if it may wither away? Engels believed that humanity will disappear from earth's face just as it has appeared. The threat of atomic wars before us, we know that it is possible.

I do not object to Kosík's answer to these questions; I do not object to his stating that God is "a social relation and product" (168). What I do object to is that he does not even as much as touch this problem – as if it were no real problem at all. In this sense, Kosík's world is again a "world without man" – a world without the individuals like him, you and me, who yearn for something Ultimate which concerns each of us.

Still, as I have said in the beginning, it is a great book. A book worth translating – which means much in view of what most Marxist-Leninist publications look like.

N. Lobkowicz

Král, M.: *Pojem hmoty v dialektickém matérialismu* (The Concept of Matter in Dialectical Materialism). Rozpravy Československé Akademie Věd, řada společenských věd, LXX, 8. Praha, ČSAV. 1960. 86 pp.

It has often been observed that Marxism-Leninism, though claiming to be the only truly scientific materialism, has made little effort to advance an elaborated analysis of its concept of *matter*. Whereas Western (in particular, Anglo-Saxon) philosophers of science have repeatedly tried to elucidate this age-old and highly complex concept by applying recent results of modern physics, symbolic logic and semantics, almost nothing has been done by Marxist-Leninists in this respect. The study under review is distinctly superior to all previous Marxist-

Leninist treatments of the problem of matter. To begin with, the author is familiar with most of the Western literature on the subject. Of the 110 books mentioned in the bibliography, only 19 are by Marxist-Leninists; and of these 19 books, in turn, only about the half are concerned with philosophy proper (the other being scientific works such as those by Fok and Bloxincev) and usually are quoted in order to illustrate ideas criticized by Král. Moreover, the author does not shrink from quoting Western philosophers such as Russell and M. Schlick in support of his own ideas. Though common in Marxist-Leninist studies on philosophy of science and on formal logic, this heavy reliance on Western literature is truly remarkable in a book concerned with a central tenet of Marxist-Leninist ideology.

Presupposing the Marxist-Leninist equation materialism-realism, Král introduces his study by a detailed analysis, and a very well argued criticism, of subjective idealism (illustrated by W. T. Stace's article 'Refutation of Realism'), of solipsism (illustrated by the ideas of J. Popper-Lynkeus, *Erkenntnis*, 1932), and of the early neopositivist scepsis as to the existence of perception-independent realities. Instead of simply recurring to Lenin's classical argument that idealism is contradicted both by science and by human practice, Král tries to show that subjective idealism is only consistent as a radical solipsism which, as soon as it is communicated, becomes self-contradictory. As to Carnap's claim that the discussion between realism and idealism is semantically meaningless, Král criticizes it along the lines of the criticism advanced by A. Pap.

Having advanced what he calls an "indirect proof for the existence of the objective world", Král proceeds to an analysis of naive realism, of the mechanicist concept of matter, and, eventually, of the claim that matter is the "substance" of objective reality. These three chapters are the most interesting ones, since they contain a quite explicit criticism of current Marxist-Leninist interpretations of Lenin's epistemology.

The chapter on "naive materialism" contains an elaborated criticism of the idea that sense-data are perfect likenesses (*názorná podobnost*) of characteristics of mind-independent realities. Though stressing that all sense-data are *caused* by objective realities, Král tries to show that the idea of a perfect likeness cannot explain the perspectivity of perception, sense-errors, as well as the fact that the universe as described by modern physics contradicts the perceived universe; moreover, if to each sense-datum there corresponds a perfectly analogous characteristic of real things, we would have to ascribe to one and the same thing incompatible properties (the same object may seem to one person blue, to another, green; etc.). According to Král, it is perfectly sufficient to assume a "structural similarity" (as defined by Russell) between sense-data and reality (the relation between sense-data and reality is analogous to that between a map and country, between written and spoken language, etc.). Indeed, if the copy-theory is taken too literally, one will be forced to say that perceptions themselves, not only sense-data, have a counterpart in reality; in short, a naive understanding of the copy-theory will result in objective idealism. (This argu-

ment reminds one of St. Thomas' argument against Plato. A number of other passages, too, suggests a quite unusual familiarity with scholastic ideas; thus, for example, Král carefuly distinguishes between the *contents* of perceptions and their *being* contents *of perceptions*. On p. 57, St. Thomas is described as "the greatest philosopher of scholasticism and of Catholic religion in general", without further derogatory qualifications).

Whereas the section on mechanicist materialism simply tries to show that, in view of the results of modern physics, the classical concept of matter is untenable today, the next chapter argues that matter is not the "essence" or "substance" of objective reality, but rather this objective reality itself. According to Král, the tendency to interpret reality in terms of the concept of substance (which the author identifies with the concept of a "bearer of properties") is rooted in the basically sound claim that the structure of language and logic reflects the structure of reality; it is however vitiated by a reduction of all logic to the subject-predicate scheme. As today we know that not everything can be expressed in terms of a logic of predicates, we must, on the ground of the claim just mentioned, be prepared to admit that reality must not have a subject-property structure. As a result of this analysis, Král feels justified in criticizing a number of Marxist-Leninist authors who describe matter as something underlying appearances, as something which has to be sought in the depth of reality and which is the bearer of more superficial properties (V. Stern, L. Rudas, V. P. Tugarinov, L. E. Majstrov, etc.).

The last chapter, then, in which Král explains the concept of *matter* in Marxism-Leninism, appears as a natural result of all preceding arguments. Matter is nothing else than objective reality, the detailed understanding of which is procured by ever developing science; in fact, the expression 'matter' is necessary exclusively for historical reasons, i.e. because in the past some philosophies ascribed to the world properties analogous to characteristics of psychic phenomena. As to the problem of the properties of matter, the author argues that reality ought to be understood as a system containing members and relations between members, each of the members of the system, in turn, being a system, too. "The objective world taken as a whole is not, once and for ever, divided into subjects and predicates according to grammatical categories ... the substantialist solution corresponds to a comparatively low degree of human knowledge" (71).

There remains, however, a basic question to be asked. If objective reality is called 'matter' only in order to exclude from it psychic properties, one can distinguish consciousness from matter only by saying that consciousness has certain characteristics which matter has not. But what if science would arrive at results which suggest that a number of the characteristics of consciousness are found in the outer world, too? Would one, then, have to conclude that objective reality is not matter after all? To put it differently: the Marxist-Leninist concept of matter is convenient because of its almost perfect emptiness. But it is precisely this emptiness which leads to a dilemma: either the concept of matter is so

empty as to make it impossible to falsify the statement that objective reality is material, this statement being tautologous, indeed nugatory. Or else, by saying that objective reality is material, one is saying something after all; and in this case, there is the possibility that science might challenge one's claim. In the first case, one is perfectly trivial; in the second case, one cannot honestly be a *dogmatic* materialist. Realism does not by itself exclude the claim that matter is rooted in spiritual realities or that its ultimate elements are analogous to those of consciousness; nor does it exclude the existence of minds independent of matter. It is, of course, improbable that science (if it continues along the lines which it has followed since the Renaissance) would ever answer such questions; it simply does not look in that direction.

N. Lobkowicz

Fischer, George: *Science and Politics. The New Sociology in the Soviet Union* (Cornell Research Papers in International Studies I). Center for International Studies. Cornell University, Ithaca, N.Y., 1964. 69 pp.

An important and well-written report on the state of sociology in the SU, with ample bibliographical and personal data. The booklet is composed of the following chapters: 1. Science and Politics. 2. Philosophers, Social Scientists, Sociologists. 3. Scholars and Institutions. 4. A Sociology of Work. 5. Research: Technology and Training. 6. Research: Attitudes to Work. 7. Theory: Class Structure. The first two chapters are the most interesting from the point of view of a student of Soviet Philosophy, and among the many relevant remarks made by the author, the classification of men working in what is called "Sociology" in the SU is probably the most important. Professor Fischer states that the very word "Sociology" is used now in the SU in three different ways: (1) first, it means "all of Marxist-Leninist philosophy and is a synonym for Marxian social and political thought" (p. 14); the present reviewer feels that Historical Materialism only, and not "all of Marxist-Leninist philosophy" must be meant here; (2) "concrete sociological investigation" which, however, covers empirical research in all of the other social sciences (ibid.); (3) "the work of separate groups of scholars"; the last meaning is said to come closest to the prevailing meaning of "sociology" in the rest of the world (p. 15). However, the boundaries between these three lines of research are "not at all clearly drawn" (p. 16).

Another interesting statement of the author is that "most of the strongest support for the new sociology comes from pure philosophers and ideologists of both the older and the middle generation" (p. 18). The last three chapters offer some examples of the work done by Soviet sociologists. These belong strictly to the field of scientific sociology; perhaps, however, the remark may be ventured that the very meaning of the questions asked by Soviet sociologists and, especially, the conditions under which they were answered, would need a lot of interpretation, before the results might be used.

The author is rather optimistic about the future of Soviet sociology. While acknowledging that it is characterized by "the fusion between scholarship and all-out service to an omnipotent state" (p. 66) he thinks that the first steps made are significant and that sociology may become at least a barometer of what is going on in that intricately changing society.

The work may be recommended to all those interested in Soviet philosophy; it would be very desirable that other fields connected with philosophy in the SU could obtain similar scholarly surveys.

J. Bochenski

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Vucinich, Alexander: *Science in Russian Culture. A history to 1860.* Stanford Univ. Press. 1963. 463 pp. $ 10.00.

This work is the outcome of the author's realization that he could not hope to appraise the development of science in the U.S.S.R. without tracing its historical roots. Mr. Vucinich, who is Professor of Sociology and Anthropology at San José State College, disclaims any attempt to cover each branch of science systematically, aiming rather at an "historical and sociological analysis of the *scientific attitude* in Russia". He thus devotes considerable space to "champions of new scientific viewpoints" and such "popularizers of the scientific point of view" as, say, Novikov and Herzen. The debt owed to foreign scholars is heavily stressed (Euler gets over 20 pages!), but there is little mention of the negative aspects of foreign dominance. There is also some mention of the humanities, notably historiography, where conflicting trends are succinctly summarized.

The author's most difficult task lay, understandably, in dealing with the relations of religion and science, which involve one in an "age-old conflict between value systems", whose basic incompatibility he sees expressed in Berdyaev's *Russian Idea.* Yet it is surely an oversimplification here to think merely in terms of "rationalism" and "antirationalism", as the case of, say, Lomonosov (p. 111) clearly shows. Mr. Vucinich rejects the widespread view of the Russian mind as being "essentially irrational, if not antirational"; but when he infers that the undercurrent of rationalistic thinking in Russla "explains" her adoption of Marxian philosophy (as if Marxism were something essentially, or even primarily, Russian!), he is on highly debatable ground. The reference to "Russian philosophizing" (p. 423) carries (intentionally or otherwise) a derogatory note, and there are surely far better sources for the "nonscientific modes of inquiry" than, say, the works by Christoff and by Schelting mentioned in this connection.

The grouping of the (numerous) footnotes at the end of the book is a constant source of irritation and distraction to the reader. There are also a number of slips in dating (e.g. Moscow University was founded in 1755, not 1775 (p. 114); Dorpat was captured in 1704, not 1710 (p. 190)). These minor criticisms apart, the book is well presented, and constitutes a stimulating, well-informed, and informative approach to the history of Russian culture from a new angle.

R. Kemball

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RICHARD T. DE GEORGE

THE SOVIET CONCEPT OF MAN*

Communism is a humanism, we are told, and under Communism everything is done for the sake of man.[1] An integral part of Communist humanism, however, calls for hatred of the enemies of Communism and for an active struggle against them.[2] Not all men therefore are chosen as recipients of Communist humanism; nor are all Soviets, as we can tell by the infliction of capital punishment for economic crimes in the U.S.S.R. The new humanism it seems is for the New Man of Communist society; and whether the new society will produce "new men" is a crucial test of the Soviet theory. But what, according to the Soviet view, is man, and who is considered a man? The answers to these questions are central not only to humanism but also to value theory, ethics, politics and law. Thus whatever clarity we can bring to bear on these questions in the light of Soviet writings will be useful both in understanding Soviet practice and in helping to specify some of the differences between the Soviet and many Western views. Man lives on many levels and is investigated by many disciplines. My concern in this paper is the Soviet concept of man, its philosophical elaboration and its philosophical adequacy.

I

The Soviet approach to the problem of man is first of all historical. In the Soviet view, there is no eternal essence or common nature which each individual man in the past, present and future shares or has. Consequently Soviet philosophers reject both Aristotelian-type approaches concerned with species and genus which hold, for instance, that man is "a rational animal", and religious approaches which define man in terms of a soul created by God and infused into a body. All such attempts are rejected as "metaphysical" and as attempts to render static and unchanging what is in fact dynamic, historical, in progress, and changing. For the Soviets, as for Lenin, the "essence" of things is relative and "expresses only the degree of profundity of man's knowledge of objects".[3] Yet this is not to

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be understood as a nominalism which denies that there are universals. According to the Soviet or Marxist-Leninist position, the concept of man, as every concept, is concrete; both the individual and the universal are real, but they are only real together. The concept of man is not abstract but concrete; not eternal but historical; not static or metaphysical but dialectical. For man is not a spiritual but a natural, tangible, historically-developing being. The search for the meaning of 'man' is to be found not in the analysis of any individual considered in himself and in isolation from his fellow men and society. Rather it is to be sought in the actual material conditions which make men what they are. For the Marxist-Leninist concept of man is based on Marx's sixth Thesis on Feuerbach, which is almost invariably quoted in Soviet discussions of this topic: "Feuerbach resolves the essence of religion into the essence of *man*. But the essence of man is no abstraction inherent in each separate individual. In its reality it is the *ensemble* (aggregate) of social relations."

According to Marxism-Leninism man is a natural being, a part of nature, who evolved biologically from the ape. But biological evolution is not the whole story, nor indeed the most significant part of man's evolution. For especially in the last phase of the formation of man, after the body had acquired its present structure, social as well as biological factors came into play.[4] What Marx and Engels added to the notion of man's evolution is that it is *work* which separates man from the ape, it is by work that man creates himself, and it is by work that man will continue to change and evolve. For it is by his labor, by acting on the external world and changing it, that he at the same time changes his own nature.[5] Labor, Engels tells us and Mitroxin repeats[6], created man himself. Together with labor came the need for and the gradual development of speech and of consciousness, and eventually, with the appearance of 'fully fledged man', came society.[7] Man appears as man only with society. The gradual changes which led man from his higher ape ancestors, through his work, yielded man, a being qualitatively different from apes, a social being, who through the recognition of nature's laws is able to apply them and gain mastery over nature.[8] Men distinguish themselves from animals when they begin to produce their means of subsistence. The way they produce their means of subsistence is their way of expressing their life. But, Marx and Engels tell us, "as individuals express their life, so they are. What they are,

therefore, coincides with their production: both with *what* they produce and with *how* they produce. The nature of individuals thus depends on the material conditions determining their production." [9]

In the Marxist-Leninist view the search for the abstract essence of man is thus a futile one. Reason is not the distinguishing characteristic of man, for consciousness, like speech, arises from need and intercourse with other man. Consciousness develops as need develops. Man changes in direct proportion to changes in what and how he produces. The historical development of man must be seen precisely as being *historical* and as *development*. Man can be said to be distinguished from other animals by the fact that he produces his means of subsistence, by the fact that he changes the conditions of his production and so changes himself, or by the fact that he has consciousness or speech. All these are to some extent true, and characteristic of 'man'; but like the concept 'man' they take on content only when seen in their specific historical instances. 'Consciousness' like 'man' is historical and develops. It is not an external, finished characteristic of man but a social product [10]; and so it has a status similar to the concept 'man'. Little is gained therefore by defining 'man' in terms of 'consciousness'.

We are now, perhaps, in a better position to understand the meaning of Marx's statement that "the essence of man is the ensemble of social relations". Man for the Marxist-Leninist cannot be taken abstractly but must be taken concretely; as the ensemble of social relations changes, so the essence of man changes. Insofar as the universal 'man' has content, it is the sum of all individual men; and insofar as the universal 'essence of man' has content, it is the sum of all social relations. Any individual man is the product of his epoch: his thoughts, feelings and conduct are determined by these. The ensemble of social relations includes his national, family, political, legal, ideological and other relations, though basic to them all are the economic relations or relations of production, which are ultimately determining and which correspond to a definite stage of development of material productive forces.[11] Economic conditions establish the limits of variety of individuals in any historical epoch [12], and what is bound by these limits has often been taken by philosophers to be the essence of man. At best these limits yield the essence of the men of that epoch. But man's essence thus arrived at has then mistakenly – but often – been taken as eternal because productive forces and consequent relations

of production and social relations change so slowly that the change in men of the time is not noticeable.

On the Marxist-Leninist view the full meaning of man can be found only by summing everything that man has been or will be. Only then will the concept be complete in all its concreteness. But such a fully concrete universal is, of course, not available to us, since man is not finished. At our present stage of development we can at best see what man has been, and what he may become, and we can attempt to give adequate expression to this by describing man's historical development. There are outstanding facts about men of all epochs, however, something which they can be said to share, even on the Marxist-Leninist view of man. The most important are that man makes himself by his labor, and that man makes himself only in relation to other men and so is the result of this relation.

Work is the means by which man distinguishes himself from other animals. An individual consequently expresses himself in a characteristically human way only when he works, and only insofar as he is a worker. But men of all historical epochs are similar in that work is the means by which they express themselves. Moreover just as man has made himself what he is by his labor, so it is by labor that man will change himself. It is by labor that men will change the material conditions of their production, and these will bring about, according to Marxism-Leninism, corresponding changes in man's social relations, and so in man himself.

According to the Soviet concept of man, man is a social being. Aristotle and others have of course noted this well before Marx. But in the hands of Marx and of his Marxist-Leninist followers this takes on a new meaning and significance. Since the essence of man is the aggregate of his social relations three things follow: (1) the individual is defined not in terms of what he is in himself, taken as an individual, but rather in terms of his relations to others. For apart from them he strictly speaking has no human essence; he is said to be a man, and different from animals, only because he has these relations. These relations are constitutive of the essence of man and so constitutive of any individual insofar as he is a man. Thus what makes an entity a man is not only his physical form but also his unique relations to individuals and objects which are not himself. He receives his essence from others and has his nature outside of himself.[13] Man is an object related to other objects in a certain, special, social manner.

(2) It follows from this that human reality is in a sense derivative. For man becomes man only with others and he receives his nature only from society, into which he is born. Society produces *man as man*[14], though society is produced by him. For Marxism-Leninism man and society are dialectically interrelated, neither being primary either in time or ontologically. But it should be noted here that it is *men* and society that are actually interrelated and that any given *individual* man is born into an already established society. Society is thus anterior to specific present-day individuals. Moreover, primacy devolves on society rather than on an individual wherever there is a conflict of interests.[15] For the individual is only a part of the whole and consequently subordinate to it.

(3) What has already been implied, but should be made explicit, is that though man is the maker of man this is not to be understood in an existentialistic fashion. For individual men do not make themselves; rather men collectively make themselves. Men together make man and his essence. An individual man receives his essence from society. The essence is a product of the social relations of that society and these were formed not by any man in isolation or alone, but by the men of that society taken together. Moreover what the men of a society can achieve, even together is not a result of their arbitrary whim or fiat. For each generation inherits its productive forces and social forms of intercourse[16] and so inherits its essence, which it can then at best to some extent modify. Thus man makes himself, but only collectively and only to the extent that he can change the material conditions of the life of his society.

II

The Soviet view of man which we have thus far outlined is man as seen from his objective side, insofar as he is an object of nature related to the rest of nature. The concept of man thus far is descriptive and non-evaluative. Each individual, insofar as he lives in society, is socially related to other men and so is himself a man. Though men from epoch to epoch or from class to class differ in their social relations, and so differ in their essence, the concept of man we have investigated so far seems to be sufficiently neutral so that men in each epoch and class can with equal justification be called men. As far as we have gone then "man" is in no sense an honorific but merely a descriptive term. It is neither good nor

bad to be a man and so there is no reason for excluding any individual from the class of men, nor would it make any sense to speak of the entities of any epoch being more or less human than those of any other epoch.

However the Marxist-Leninist concept of man adds to or superimposes upon this descriptively neutral approach to man valuational aspects or uses of the concept 'man'. The first of these arises from a consideration of the subjective or personal side of man; the second from an ideal image of what man can and will become, in terms of which earlier states of man are seen as inferior to his later development.

According to Marxism-Leninism the subjective, inner or so-called spiritual life of man is not to be denied. But it must be correctly understood. For man's inner world or spiritual life – which includes all his ideas, feelings, representations, values and goods distinct from material life[17] – is not a separate, independent world unto itself. Rather it is derivative and based upon the objective world, of which it is a reflection. Mind or consciousness, according to Marxism-Leninism, is the highest product of matter, but it is derivative and not original; it is a quality or function of matter. Through consciousness man can bring into himself in a reflective manner what exists objectively outside of him. His spiritual world is a reflection of the material world and based upon it. The richness of a person's spiritual life can vary and is always limited to the richness of the society in which he lives, its social relations and its objectively existing culture. An individual's spiritual richness is thus a function of both the cultural richness of his society and of his actual reflection of this richness. It includes the development of his talents in physical and mental work through education and practice, the development of his feelings, and the development of his inner life by mastering the achievements of human culture.[18]

Man considered from the perspective of his internal, subjective, spiritual development can be considered in terms of his "person" or "personality" (there is only one word, *ličnost'*, in Russian and it has both meanings). In the Soviet view not every man is necessarily a person and in history certainly not every man has been so considered. A slave, for example was not considered a person by the slave holder.[19] Personality is a social phenomenon[20]; it, like man, is a product of society and essentially social and derivative in its content. According to V. P. Tugarinov, a noted Soviet philosopher at the University of Leningrad, Marxism-Leninism

does not identify "man" and "personality". Personality is a property of man and the judgment of who is considered a person depends upon the society in which people live.[21]

The Soviet notion of personality is one which admits of degrees. Individuals may be more or less fully developed persons. Historically speaking the development of the concept of "person", according to Marxism-Leninism, is closely related to the development of the concept of "man" and the two are often interchanged. In primitive society man in a tribal community identified himself with his tribe or clan and had no consciousness of himself in his individuality. As society developed, classes arose. With the rise of classes there arose individual self-consciousness on the part of the exploiting minority who were separated from and stood above the masses. Even the Greeks who developed a great culture considered most men as slaves; they were not persons but things to be bought and sold and used as one wished. Yet the Greek citizen had the opportunity for all-round development of his personality to a fuller degree than man of bourgeois society, who is more a slave of the division of labor. In bourgeois society personality becomes a function of capital, of money and possessions. According to Marxism-Leninism it is only under Communism that each man will be recognized as a person and achieve his full all-round development.

'Person' is thus an honorific. Personality is both something which can be achieved and which it is morally good to achieve. Since personality is formed and recognized by society, societies can be judged moral or immoral depending on whether they foster or hinder the development of personality.

The development of personality consists in the development of self-consciousness, of consciousness of one's connections with others, and of culture, inclinations and tastes.[22] Personality is developed not by individual effort alone but only through mutual help and education. Richness of personality presupposes the objectively existing richness of society, cultural and other, which can be reflected. The perfection of man consists in the fullest development of his personality. This in turn requires the perfection and development of society. Since an individual's spiritual world and conduct are the results of the relations and structures of the society in which he lives the perfection of the individual is achieved by the perfection of society.[23] Experience and education heighten the value of

individual life for oneself and for society; the more an individual mirrors reality the more value he possesses. His value thus is derived from society.

The freedom of man is not the freedom of a supposed disembodied spirit unfettered by natural laws. As man's spiritual life is a reflection of his material life, he is free when he directs his actions in accordance with the known laws of nature. Freedom is not something which is only internal to man but is necessarily related to objective reality. It is the ability to act with knowledge of laws. It is not a property of spirit but of human activity.[24] Man will be free to develop himself, therefore, only when: (1) he correctly reflects or knows the laws governing reality; and (2) he is not impeded in engaging in labor in keeping with his inclinations. Under these conditions alone can man be said to be free to develop and assert himself as a personality. According to Marxism-Leninism the first condition is achieved only through a command of the "creative" ideas of Marxism-Leninism[25]; the second only in a society in which there is no exploitation and in which personal and social aims coincide, i.e., in a Communist society. Thus for Marxism-Leninism man can fully realize himself as a person and achieve maximum value only under Communism.

III

If we now join the descriptive concept of man which we initially looked at – man from the objective view – and the evaluative concept of the person – man from the subjective view – we can complete the Marxist-Leninist concept of man. The two elements are fused for the most part both in the writings of Marx and in those of the Soviets on man. Based on the relation of these two elements Marxism-Leninism develops an ideal view of man in terms of which men of different societies can be judged. In terms of this ideal anything falling short of it can be recognized as a deficiency, and the primary deficiency is termed 'alienation'.

According to Marx, when man began to emerge from primitive society he emerged into a class society based on private property and the division of labor. The result was the alienation of man, where by alienation is meant a discrepancy between the essence and the existence of man or between his objective and subjective facets. The essence of man is collective, something that he makes together with other men and which they share. But in his individual actual existence in a class society man found

himself separated from and opposed to other men. The essence of man includes all human culture and all social relations. But the individual separated from others could own only a microscopic part of this essence; he could realize and reflect only a small crumb of his essence.[26] Man created man; but measured against his essence the individual in class societies was found poor. As a result of the division of labor individual men became "partial men" or truncated persons who made and possessed only a fragment of human culture because the rest belonged to others.[27]

In a class society, according to Marxism-Leninism, the condition of "war of all against all" exists and man is separated, opposed to other men, and so fragmented in his existence. The product of his labor, the means by which he expresses himself, is appropriated by another and so he is alienated from it. His labor, his productive activity, is the means by which he should express himself; but he is forced to sell this to another, to the capitalist; and so labor becomes not a way of life but a means of keeping himself alive by selling himself. Each seeks to possess what he can and so does not share. What should be common is private; what should unite men – their labor and what they produce – divides them. The divisions of society are reflected in the division of man, whose essence becomes fragmented, whose existence becomes partial, whose development is constrained, and whose personality – at least in the case of the oppressed, exploited masses – atrophies. At best in a class society we can speak of "class men" who reflect their class.

According to the Soviet view man can overcome his alienation from himself only when the cause of division, viz., private property and the division of labor, are abolished. Only when man is not separated from other men and when he can express himself in his labor can the split between man's essence and existence, between his subjective and objective facets be overcome. Only by abolishing classes can man emerge from class-man to man as such, fully reflecting the totality of his essence. Such is the ideal of man and it can be realized, supposedly, only when society is organized in a Communistic manner. Only then will man be fully man and will each man be a person, free to engage in the all-round development of his personality and in the unfolding of all his talents and abilities.[28]

As a result of this view several things follow. (1) Not only are men of capitalist society partial, truncated men, cut off from the full enjoyment of the collective essence of capitalist society, but this essence itself falls short

of the ideal. Men, insofar as they acquiesce in these conditions, are not what they should and could become. Consequently, these men, as a class, are immoral. (2) Insofar as man makes himself by his labor, work assumes moral value in Soviet society. The recently promulgated Moral Code of the Builder of Communism, for instance, cites "conscientious labor for the good of society" as one of the highest principles of Communist morality. Individuals who do not work are called parasites, considered immoral and subject to legal persecution. For in so acting they in a sense deny their humanity, insofar as, though capable of doing so, they fail to express themselves humanly through their labor. (3) The "builders of Communism", it is claimed, are builders not only of a new society founded on new productive relations, but they are also the builders of better men, of the "new men" who will people that society and who will reflect the unfragmented human essence which results from an unfragmented society. The emphasis is not only on labor but on "conscientious labor for the good of society". The Soviet concept of a good man is thus one of a future-oriented, dynamic worker, struggling to produce a better society, and struggling against both the forces of nature and the bourgeois, capitalistic influences which he has inherited and which still surround him. Consequently both an individual's fulfilment and his happiness depend on his engaging in this struggle; it is in this struggle that he is to find the meaning of life. This is the image of man fostered and promulgated in the Soviet Union. (4) Marxism-Leninism claims that Communism is a humanism because it allows for the full flowering of man. Under Communism personal and social interests will supposedly coincide. Social consciousness will coincide with social being and thus man's essence will coincide with his existence. Man will at last be fully man. However, since Communism has not yet been achieved and is still in the future, Communism as a humanism is still to be achieved and is still in the future. For as we have seen not all men are presently recipients, either in theory or practice of Soviet humanism. As the part is inferior to the whole and cancerous tissues are sacrificed for the benefit of the organism, so recalcitrant, anti-social or bourgeois individuals are expendable in the production of the new society and the new man. According to A. F. Šiškin, whoever remains outside the struggle for Communism is not yet conscious of his human dignity; whoever becomes an instrument of exploiters deprives himself of his dignity.[29] If the fullest blooming of man is

possible only in future Communist society, present-day man can achieve his greatest value only in engaging in socially valuable work which will lead to Communism.[30]

IV

The foregoing account of the Soviet concept of man distinguishes between the descriptive and the evaluative uses of 'man'; between references to present-day men and to man-of-the-future, and between men considered as individual beings and men considered collectively – even though most Soviet writers do not bother to make these distinctions. Yet such distinctions are necessary if we wish clarity on this subject, and those which I have introduced are based on an analysis of the pertinent Soviet literature. V. P. Tugarinov acknowledges that the problem of the person is still at its beginning in Marxism-Leninism and awaits its working-up.[31] Yet L. V. Nikolaeva correctly notes that: "The question of the person and his freedom in the present day stands at the center of the ideological struggle."[32] What then can we say of the Soviet concept of man and of its philosophical cogency and adequacy as it has been thus far developed in the Marxist-Leninist literature?

Gustav Wetter has pointed out the difficulty of explaining how work can be said to have produced consciousness.[33] N. Lobkowicz has shown the ambiguous status which 'mind' has in the monistic materialism of Marxism-Leninism.[34] J.-P. Sartre has raised the difficulty of how men, unless they are originally free, can be made free by changing social conditions.[35] And the tendency on the part of young Poles to be attracted to existentialism and on the part of some Soviets to be attracted to the writings of Teilhard de Chardin shows that perhaps the Marxist-Leninist concept of man is inadequate in its total ideal appeal. The central point at issue between the Soviet and many Western views of man, however, seems to center not on the descriptive aspect of man but on the question of the value of the individual. It is therefore with this that I shall briefly deal.

In the Soviet view of man, as we have seen, not every individual man is a person, nor is every individual a bearer of dignity. Both personality and dignity are acquired by engaging in socially useful labor. In contrast with this in a Christian, Kantian or natural law view of man, each individual is seen as possessing intrinsic value, dignity, and rights. At least some of his rights do not come from society or the state, though they may be re-

cognized by society and the state. They belong to him as a person, and only because they do belong to him can they be recognized. Each individual man is thus seen to be a person and, following Boethius, "persona est naturae rationalis individua substantia".[36]

According to Marxism-Leninism, the value of an individual is extrinsic and is either a product of his usefulness to society, or is derived from the fact that he reflects the value of society. At best he is a protozoic brick of the social building[37] and has the value of being part of a valuable whole. In himself and of himself, however, considered apart from society, he has no intrinsic value and can scarcely be called a man in any sense of the word. The reality of individuals as individuals is illusory; for man has reality, has an essence, and so is a man, only in society. An individual is a product of society and so is subordinate to it.

The locus of intrinsic value in the Marxist-Leninist view has yet to be made clear. Yet it is a question which must be answered if the evaluative aspect of the Soviet concept of man is to be saved from arbitrariness. For either there is something intrinsically valuable on the Soviet view or there is not. If there is nothing intrinsically valuable then within the Soviet scheme value would be based solely on interest. But then any interest could generate value and there would be no reason for accepting Soviet claims concerning what is valuable. If on the other hand there is intrinsic value and if it does not reside in individual man – as it clearly does not on the Soviet view – then it must reside either in things or in society as such. The claim that individual men become valuable to the extent that they correctly reflect the value of society, its culture, or the like, seems to favor the first possibility as the locus of intrinsic value. For reflection alone is not a source of value and if a man has value because he reflects culture, culture itself must be valuable. But what seems to be meant by 'culture' are such things as art and music which are made by men. It is not at all clear why things made by men, the means by which they express themselves, can be considered intrinsically valuable when men themselves are not. Consequently it does not seem that things are intrinsically valuable according to Marxism-Leninism and the only remaining candidate for intrinsic value is society as such.

In raising the question of the intrinsic value of society it is well to remember that society is composed of individual men and their relations. Since the individual building blocks of society are not individually

bearers of intrinsic value, either social relations as such are valuable or the parts as totally related have intrinsic value. But there is no reason for holding that the relations alone are intrinsically valuable; and so we are left with the alternative of society as a whole.

Now, it seems that on the Soviet view not all societies are intrinsically valuable. Societies are classed as more or less progressive depending on how closely they tend towards or lead to Communism. And so it seems that the locus of intrinsic value, that which should exist for its own sake, is not society as such, nor any past or present-day society, but a future, Communistic society. But where this future society derives its value is not clear. The descriptive approach to man was value-free. The ideal approach introduced the criterion of value in terms of which man's progress toward the ideal could be measured. But why does the ideal itself have value? The Soviets claim that: (1) it is the inevitable state towards which man is developing; (2) it is the society in which man's essence and existence will coincide; and (3) it is the desired goal of mankind.

With respect to the first claim it is clear that inevitability is insufficient as a basis for value. Any state or stage of development of either society or of a man has equal claim to intrinsic value. The fact of its coming before or after another state or stage is irrelevant. If a person is intrinsically valuable, this is true of him in infancy, adolescence, maturity and old age, though for certain purposes (and so extrinsically) he may be better qualified for some tasks at certain stages of his development. Why society achieves intrinsic value only at some stage in the future is not only not clear, and seems to be *prima facie* untrue.

The second claim, that under Communism man's essence and existence will coincide, also fails to explain why Communist society and only Communist society is valuable. The first difficulty here is that it is not clear what it can mean for man's essence and existence to coincide. Insofar as man's essence is the ensemble of his social relations he would in his existence supposedly have to adequately reflect all the relations of his society. If this means that each person in the society must reflect all the relations, it is quite impossible. For society is too complex for any individual to reflect all its relations. If it means that all relations must be reflected by all individuals collectively (that is, if social consciousness is the sum of individual consciousnesses) or if it means that each individual must be allowed to reflect as much as he is capable of, then there seems to

be no reason why this is not possible in other societies besides a Communistic one.

The third claim, viz., that Communism is the desired goal of mankind, is obviously false insofar as it is not the goal of many non-Communists. But even if it should become a generally desired goal, such interest or desire can only give extrinsic value to what is desired. The question of why it is desirable would remain legitimate until we found something valuable in itself and not merely valuable as a means.[38]

The Soviet ideal of society seems based on a faulty analogy in which society is considered an organic unity. Marxism-Leninism denies the intrinsic value of the parts, i.e., the individuals making up society, while assigning value to the whole. Just as a part of an organism may be sacrificed for the whole, so the Soviets argue an individual may be sacrificed for the good of society. But the analogy fails because, unlike the human organism, each of the parts of society enjoys consciousness and can claim value for himself as well as and as plausibly as for the whole. Built into the Soviet social ideal is also a certain view of economics, viz., the labor theory of value in which capitalism is claimed to be the exploitation of one part by another part, to the detriment of the whole. But the parts, the laborers, seem better off under present-day capitalism than under socialism; and so there is good ground for denying detriment to the whole or to the parts. Finally the right by which the Party determines what is reasonable and why it should direct the development of society presupposes that there is an ideal which it sees and which all the parts desire, that society is progressing towards this ideal according to laws of natural, internal development, and that the Party sees most clearly the means to arrive at this state. All three claims however, are presuppositions which can be challenged and which have not been proven. Society as a whole, I suggest, cannot with consistency be considered intrinsically valuable unless the members of society are so considered. To empty them of interiority and make men only derivatively valuable – as Marxism-Leninism does – leads to the dilemma of having no locus of intrinsic value.

The practical implications of a theory of man in which the individual man does not have intrinsic value lies in the fact that according to such a theory he has no natural rights and no rights except those given him by society. A legal system so based makes the individual the pawn of society, and 'man' is substituted for men. As a basis for law it has all the dangers

for individual rights which can and have served as justification for violence to individuals "for the good of the whole".

The Soviet concept of man is historical, social, naturalistic, dynamic and work-oriented. It has a descriptive and an ideal component. But both components are infected with philosophical difficulties. The upshot is that if Communism is a humanism, it is not a humanism in the sense of holding that every individual human being is valuable in himself; insofar as it is a humanism in any sense it is insufficiently grounded philosophically; and properly speaking it is not a humanism *now*, for Communism is yet to be achieved. At best it will be a humanism when and if it becomes actual, where by 'humanism' we mean concern for the totality of men and derivatively concern for the individual insofar as he contributes to the proper functioning of society.

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THOMAS J. BLAKELEY

SCIENTIFIC ATHEISM: AN INTRODUCTION

Practical atheism, i.e. complete opposition to and ferocious persecution of all religions, is a constant characteristic of all Communist regimes. But, it is only relatively recently (as of 1954) that the Soviet *collegium philosophicum* has made any efforts to present 'scientific' atheism in a clear and rational form. This relative under-development of an admittedly essential portion of the Communist *Weltanschauung* can be best explained by viewing it in the historical perspective of its Marxian origins.

HISTORICAL

Few sections of contemporary Marxism-Leninism tend to be as truly Marxian as does scientific atheism and the most recent developments represent a quite definite reversion to the atheism of the young Marx. Of the three recent works dealing with the atheism of Marx[1] that by Charles Wackenheim, *The Failure of Religion According to Karl Marx*[2], is the most competent and the most relevant to contemporary Soviet scientific atheism. Wackenheim shows that Marx' atheism was in constant evolution but that one can distinguish three main periods in his thought on this subject, each of which is dominated by a specific conception of the nature and role of religion.

In the first period – from about 1835 to about 1842 – Marx is involved in trying to construct a philosophical critique of religion. Although his thought remains basically Hegelian, Marx joins the Hegelian left in rejecting Hegel's efforts to reconcile philosophy and religion as different aspects of the return of the Absolute Idea to itself. This rejection tended in two basic directions. First, it was pointed out that God and religion were arbitrary appendices to the Hegelian synthesis; the impersonal and universal Absolute Idea had only a passing resemblance to the personal Christian God. Second, there was a general return of most of the members of the Hegelian left to the rationalistic atheism of the Enlightenment with its cult of reason and progress, its religion of duty and its philanthropic

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fervor. Succinctly put, the Marx of this period is against religion because he is for the freedom of man and for a reality constructed according to the canons of reason. Added to this theoretical rejection of God and religion was Marx' horror of the official religion under which he lived in this period – a Protestantism in definite decline which served as ideological justification for a Prussian monarchy which, in turn was, its protector.

The second period extends from about 1842 to about 1845 when Marx engaged in a fundamentalist criticism of the whole Hegelian synthesis and, through it, of the entirety of traditional philosophy. The central theme of Marx' speculations is the fundamental unity of theory and practice. Philosophy has to 'realize', 'actualize' itself; it must become 'practice'. Religion is here rejected in the name of Marx' conception of the practical nature of man's condition. Religion is an alienation and, as such, must be reduced to its economic bases, but it differs from the other alienations in that it is totally false. Marx conceived alienation as the attribution to an ideal being of those properties (e.g. universality, justice) which properly belong to the real man. Of the four forms of alienation (religious, political, civic, economic), the economic is the most fundamental (private property separates man from his work, from its fruits, from his fellow workers and, ultimately, from himself) and constitutes a veritable de-humanization of man, but the religious is the most universal and the most fundamentally erroneous since it causes man to unwittingly worship himself instead of moving forward toward self-realization.

During the third period – 1845 to 1848 – Marx the philosopher was rapidly becoming Marx the political activist. His attention turned from nature and man to historical materialism and the evolution of history and society. Applying the alienation-schema to society, Marx finds that religion is an 'ideology'. The real life of man in society is his economic life; an 'ideology' is the expression of the 'non-realities' characteristic of 'non-real', i.e. alienated and de-humanized, society; and, chief among these expressions of a 'false consciousness' is religion. Religion is, first of all, a result of historical evolution, a reflection of the economic conditions of a class-society. But, further, religion is – like all ideologies – an arm in the class-war and is used to prevent man's progress toward self-realization. This is why Marx felt obliged to come out openly for the total sup-

pression of religion and it is this aspect of his atheism which was seized upon by his Marxist-Leninist heirs.

The three steps in the evolution of Marx' views on religion – fraud, falsity, ideology – have been reproduced in Marxist-Leninist scientific atheism but in reverse order. But, before taking up this subject, the views of Engels and Lenin on religion must be taken into account, even if only parenthetically.

Engels was responsible for the codification (one might say 'fossilization') of the final or 'ideological' phase of Marx' thinking on religion. But, more than this, he stressed the epistemological character of religious ideology and gave a summary characterization of its empirical roots.[3]

Lenin's atheism was more instinctive than rational and, at the same time, it was more violent than that of either Marx or Engels. The reasons for this are fairly obvious. First, he was actively directing a revolutionary movement which not only had to overthrow the church-supported Tsarist regime but also had constantly to contend with the quasi-mystical apathy of the deeply religious Russian people. Second, he had to squelch religious or pseudo-religious movements – notably the *bogoiskateli* and *bogostroiteli* – in and around his own revolutionary movement. Finally, as head of the young Soviet state he had to contend with the direct and indirect resistance of organized religion and the religious attitude of the people. Of Lenin's works which touch on religion[4], only the *Philosophical Notebooks* offers anything which goes beyond Marx' ideological phase. First, Lenin expands Marx' observation that there is a close correlation between religion and idealism into a general rule that all religions are emotional expressions of idealism and all idealisms are refined philosophic expressions of religious ideology. Secondly, Lenin expands the list of the roots of religion (and idealism), shifting the emphasis from the purely sociological to the more epistemological.

Lenin's militant atheism set the tone for the activities of Marxist-Leninist atheists from his death until the dark days of the Second World War. Practical atheism was the order of the day mainly because the then-reigning crown prince of Soviet philosophy, Stalin, had not uttered one theoretical statement on the subject of God and religion. Practical atheism meant schools of atheism, administrative elimination of the clergy, journals and newspapers full of hate-propaganda directed against all

believers, atheist museums located in former churches, and numerous other forms of persecution and suppression. But, the main emphasis in this period was on education – an education designed to eliminate religious customs and beliefs. The mentors of this drive to educate the new man – Lenin's wife, Krupsakaja, A. V. Lunačarskij, M. I. Kalinin, I. I. Skvorcov-Stepanov and others – depended on a series of slogans which are still current in contemporary Soviet anti-religious propaganda: religion is false; religion is an impediment to the revolution and social progress; the church is corrupt; the church is anti-revolution, hence anti-Russian; the new society needs a new moral code, that of work and of devotion to the proletariat and its internationalism.

World War II marked a hiatus in any kind of atheist activity. The Communist Party and the Soviet government called on the church to encourage its members to support the fight for Mother Russia and made concessions in regard to opportunity to worship, training of priests, etc. There was a general relaxation of the war against religion and after World War II the fight had to be begun anew. But, conditions had radically changed. The propagandists of atheism found themselves before audiences which knew all the slogans by heart and knew which were patently false. They could see that the Russian church of 1945 was not corrupt. They had seen this same church defending Russia during the War as well or better than any Communist. Many of them were bothered by questions which modern science had raised but could not solve. Finally, many of them wanted to know why religion was still going strong in the Soviet Union after almost thirty years of systematic persecution and repression. Scientific atheism is being developed to meet the needs of this more enlightened listener.

Early approaches to a more rational atheism in the Soviet Union were hesitant, mostly historical and often misguided. This came to light in 1954 when the Central Committee of the Communist Party of the Soviet Union published – only five months apart – two decrees on the mistakes made in this field.[5]

DOCTRINAL

What contemporary Soviet philosophers mean by 'atheism' and 'scientific atheism' can best be seen by considering their views on the history of atheism and the history of religion. Previous to this, however, we can

construct a preliminary description of these terms as they are currently in use in Soviet philosophy. And, from the beginning it is obvious that atheism can be described and defined only in correlation with religion.

Atheism, as conceived by the Soviets, is not a criticism of single religious dogmas but the total philosophic, scientific and historical negation of all religions. It is a system of scientifically materialist views based on total rejection of any belief in God or gods or supernatural powers and on the elimination of all religious views. Ultimately, as we shall see more in detail below, atheism is to religion as correct and scientific knowledge is to erroneous and fanciful imagining.

The Soviet characterization of religion is somewhat more complete and enlightening. Religion is a form of social consciousness in which the phenomena of the real world are reflected in a false and distorted way; it is embodied in the worship of a God or of gods; it reflects the interests of the dominant class; and, it is codified in the dogmas of the church. Thus, religion, too, is basically a form of knowledge and the philosophic opposition between atheism and religious ideology is embodied in the mainly epistemological opposition between materialism and idealism. This central theme of contemporary Soviet philosophy can be briefly summarized as follows: the basic question of all philosophy is that on which is primary, matter or spirit; materialists maintain that matter is primary and that spirit (therefore, God, soul, etc.) is secondary or derived; idealists maintain that spirit (therefore, God, etc.) is primary and matter secondary; materialism necessarily implies atheism since the primacy of matter leaves no room for God; idealism necessarily implies religion since it denies the primacy of matter, which is the only factor which can effectively and irrevocably exclude God from the picture. As we have shown elsewhere[6], the Soviets see all forms of idealism and of non-dialectical materialism as just so many variants of metaphysical subjective idealism, the natural bedfellow of religion. It follows – as the Soviet philosophers themselves are wont to say – that only dialectical materialism is fundamentally, i.e. 'scientifically', atheist.

In describing the history of atheism and religion, contemporary Soviet philosophers follow the basic historical schema of histomat: primitive society, slave-holding society, feudal society, capitalist society, socialist (Communist) society.

Atheism came first. In the classless primitive society there was no need

for religion. As a matter of fact, man had no need of any ideology at all. There was just knowledge, i.e. science. This knowledge was admittedly of a low level but it was essentially free from distortion.

Religion arose from the class-conflicts born with the transition from primitive society to slave-holding society. Under the pressure of strange new social relations and problems man sought escape in religion. Religion in this period was structured along the lines of the patriarchal system, with a father in Heaven, a family of saints and the concept of 'sons of God'. Fear before natural and social forces gave rise respectively to fetishism and animism. But, the same epoch was marked by an increase in productivity (due to a concentrated use of slave-power) and, therefore (according to the Marxist-Leninist doctrine on the unity of theory and practice), of knowledge and, consequently, of atheism – an atheism represented by Heraclitus, Democritus, Epicurus, Lucretius Carus, and just about any philosopher who was anti-mythology, rationalist, anti-anthropomorphism, pro-democracy, relativist, or sceptic.

Feudal society was almost completely dominated by religion but materialism (and, consequently, atheism) continued through the works of such philosophers as Averroës, Avicenna, Roger Bacon, Nicholas of Cusa and any philosopher who was a heretic, iconoclast, nominalist or anti-Catholic.

The transition to the fourth period saw the complete breakdown of the feudal social fabric and the rise of individualism. Freed from religion, a great number of philosophers turned (rather, returned) to atheism, among them: Pietro Pomponazzi, Erasmus, Copernicus, Bruno, Hobbes, Spinoza, Diderot, Helvetius, d'Holbach, Lamettrie, Feuerbach, Belinskij, Herzen, Černyševskij, Dobroljubov, Pisarev, Lomonosov, and Radiščev.

The fifth period in history is destined to see the final disappearance of religion and the universal establishment of the scientific atheism of dialectical materialism. This atheism is qualitatively distinct from all previous forms because it was the first to correctly detect the sociological roots of religion, because it brooks no compromise with any form of religion (as did the medieval atheists and the deists), because it is absolutely universal paying attention to the needs of the working masses (which was not the case with the deists and Russian revolutionaries), and because it is based on diamat and histomat, the absolutely correct philosophy. Religion, on the other hand, is doomed. Whatever vestiges of it are still around are

on the decline and in no position to challenge the 'scientific atheism' of dialectical materialism.

In describing the historical forms which religion has taken, contemporary Soviet philosophers generally limit themselves to the so-called 'great religions', i.e. Judaism, Christianity (Catholicism, Protestantism, Orthodoxy), Islam and Buddhism, which are generally characterized as follows.

Judaism is distinguished by a belief in one God (Jehovah), the doctrine of the chosen people, Messianism, and specific forms of worship. It resulted from the economic and moral situation of the Jewish tribes and was used by the dominant class to keep the people in slavery and to curb revolution. The worship of Jehovah was a later phenomenon and a result of class-war. The Talmud was composed at different times by different authors to aid in the exploitation of the masses. Contemporary Judaism is completely in the hands of the capitalists who control the U.S.A. and Israel.

The Christ of Christianity is a myth. There is no historical proof for his existence and many of those who would have been his contemporaries had he existed (Seneca, Pliny the Elder, Philo of Alexandria) do not even mention him. The biblical narrative is stupid, vague and mythical. The evangelists do not agree with one another and there are contradictions within each Gospel. Early Christianity was cosmopolitan and democratic but already by the fifth century it had become the captive of the rich and non-democratic elites. Catholicism believes in combining the Bible with tradition. It holds that the supreme authority in all fields is the Pope who has historically been opposed to the Councils, to Russian Orthodoxy, to political progress (as evidenced by this collaboration with the U.S.A., with the Christian-Democrats, and with anti-Communist fascists). The rise of Protestantism marked the end of the feudal era. It was anti-mystical and anti-monastic but represented only a limited protest against the excesses of Catholicism. The main forms of Protestantism are Lutheranism, Calvinism and Anglicanism, each of which has its own bourgeoisie. Orthodoxy is the Christianity of Byzantium. It is conservative, irrational, mystical, ascetic, anti-scientific and reactionary. It was the slave of the Tsar and is currently against socialism, against the revolution, against the people and, therefore, anti-Communist.

Islam was born in Arabia where the growth of commerce with its consequent mixture of tribes gave birth to the ideal of Arab unity of

which it is the religious expression. Islam enables the dominant classes to maintain their control. The Koran is a hodge-podge of myths and legends and shares the defects of the Bible. The over-all effect of Islam is to retard economic and social progress in the lands where it has control.

Buddhism developed during a sharp rise of commercial activity in the East. Gauttama is as much a myth as is Christ. The Buddhist sacred texts are as false as the Bible. The essence of Buddhism is to distract the people from the necessities of practical life. Buddhism serves to maintain feudalism in the East.

The bulk of what we have reported above is obviously inspired by Marx' views on religion during his 'ideological' period. And, as was stated at the outset, the growth of scientific atheism has followed a path which in a certain sense is the reverse of that taken by Marx in the evolution of his thought on atheism and religion. In what follows we will review recent Soviet publications, discussions and decrees concerning scientific atheism and religion. Subsequent articles will deal with specific problem-areas of scientific atheism and will show how contemporary Soviet philosophers are gradually leaving ideological barbarity behind in favor of a more reasoned attack on religion as erroneous and fraudulent.

As is the case with any section of Marxism-Leninism, the form and character of scientific atheism are the result of a combination of official decrees and subsequent activity on the part of the philosophers. The process is, in itself, quite simple: the political potentates lay down guidelines for the development of a given domain in Communist Party documents which are usually published in *Pravda*. It is then up to the theoreticians involved to carry out their research and publication along these lines. The final step is a further decree from on high judging the work done to be pleasing or displeasing: unfortunately – for Soviet theoreticians – the decision is usually *nedostatočno* (insufficient). In most cases the tracking down of this simple sequence is inordinately difficult because not only are the two types of text – decrees and scientific works – published in different places and at different times, but also contemporary Soviet philosophers are not wont to give exact references to the decree in question (although they are seldom backward in pointing out *that* they

are conforming to the official line). These difficulties are attenuated in the case of scientific atheism by the fact that most of the relevant decrees are of relatively recent date and, in any case, they are few in number.

In what follows we shall first examine the official and semi-official documents which establish the Party-line in regard to contemporary Soviet scientific atheism. Then we shall describe the main published sources which are at the disposal of the Western researcher on contemporary Soviet scientific atheism.

DOCUMENTS

Almost every Congress of the Communist Party of the Soviet Union has called for elimination of the 'old ways' and education of the people in the 'new spirit'. These clarion calls are often interpreted by Soviet philosophers as 'profoundly pertinent' to scientific atheism. The first official documents on the subject, however, were published in 1954. In that year the Central Committee of the CPSU promulgated two decrees on insufficiencies in propaganda in favor of scientific atheism. These have subsequently become the foundation stone of contemporary Soviet scientific atheism.[7] The first, 'On Enormous Insufficiencies in the Propagating of Scientific Atheism and on Measures for Ameliorating it. Decree of the CK KPSS of July 7, 1954'[8], begins by pointing out that, while the scientific atheists have been asleep at the wheel, religion has begun to regain ground. This is evidenced by increased observance of religious holidays and augmented numbers at the religious shrines, the nefarious effect of which is seen in great losses in agriculture, loss of man-hours in industry, decrease in worker-discipline, and a loss of interest in the construction of Communism. Atheists have fallen prey to passivity, thinking that just because the Soviet Union is classless religion will disappear all by itself. Publications on atheism are of a low level and seldom read; movies are not used; and what work is done lacks the militant and partisan spirit of scientific atheism. Having drawn this bleak picture, the decree specifies means for correcting the situation: (1) All local Central Committees are to actively promote activities in favor of scientific atheism; these are to be carried out systematically, constantly, person to person; basic to this work is the spread of scientific knowledge, of rational positions on the structure of the universe, the origin of life, etc.; the object of the activity is the elimination of all religions, sects and religious

remnants among the people; all means are to be used, including, lectures, courses, speeches, publications, radio, movies, theater. (2) Agitprop is charged with organizing courses on atheism as part of the Marxism-Leninism courses of universities and other institutions of education. (3) The Ministry of Culture and other cultural agencies are (a) to improve the spread of scientific knowledge especially by using better qualified lecturers, (b) to elaborate and carry out a publication plan for scientific and atheist literature in 1954 and 1955, (c) to prepare and execute a plan for anti-religious films in the period 1954–1956, (d) to arrange for radio broadcasts of scientific-atheist speeches and discussions, (e) to use all means of spreading culture in order to make known to the people the accomplishments of Soviet science, technology and culture, (f) to provide lecturers with atheistic albums and diapositives. (4) The All-Union Society for the Propagation of Political and Scientific Knowledge is to publish a popular monthly, *Science and Religion.* (5) The Gospolitizdat is to organize during 1954 and 1955 the publication of a selection of the works of the classics on religion and atheism as well as a series of popular works on the relations between religion and the CPSU and Soviet government. (6) The Publishing House of the Academy of Sciences of the Soviet Union is to publish works and fragments of the ancient and French atheists. (7) The Foreign Languages Publishing House is to publish the best works on atheism of foreign scholars and authors. (8) The Goslitizdat is to publish massive editions of atheistic literature of an artistic character. (9) The editors of national and local journals are to publish popular materials on atheism. (10) The Ministries of Education are to see to it that atheism is systematically introduced into all domains of teaching activity and that conferences are held on this theme. (11) Youth groups are to see to the atheistic education of the young. (12) Professional groups are to see to the atheistic formation of all workers. This is a vast program but, in essence, it represents what should have been done in the field previous to the decree. The second decree of 1954, 'On Mistakes in Carrying on Scientific-Atheist Propaganda Among the People. Decree of the CK KPSS of November 10, 1954'[9], is less detailed but much more important for subsequent developments since it is here that we find for the first time a definite shift of emphasis from the 'ideological' to the 'philosophic' presentation of scientific atheism. The preface points out that although the Party-line is atheistic and anti-religious, there is no

reason for personal attacks on and administrative discrimination against believers. For many reasons (social changes, elimination of classes, victory of socialism in the USSR, successful development of science, general spread of education) the believers in the Soviet Union are generally loyal to the Communist regime. This does not mean that atheistic propaganda is no longer necessary; but it does mean that this propaganda must be more refined and more attuned to the sensibilities of the loyal believers. The basic factor working in favor of the atheist is also indicative of the path to be taken by further scientific-atheist propaganda and research: Communism is based on science while religion is basically anti-scientific and true science is anti-religious. It is through a sound education of the people in all branches of science that religion can best be eliminated.

These were the basic guide-lines for the development of scientific atheism in the period since 1954. There have been two other decrees – which might better be called directives – directly concerning scientific atheism, published since 1954. The first, 'On the Journal *Science and Religion*' (May 5, 1959)[10], returns after a lapse of five years to the question of a special journal on scientific atheism. The All-Union Society for the Propagation of Political and Scientific Knowledge is again assigned the task of publishing *Science and Religion* which is to contain popular articles on science, religious ideology, theory and history of atheism, methods of atheist propaganda, and reports on atheist publications. *Science and Religion* finally did appear in 1960. The second decree[11] orders the preparation and publication of a popular textbook on scientific atheism.

The two semi-official texts which can add to our understanding of contemporary Soviet scientific atheism are both editorials of the *Voprosy filosofii* and each is in response to an official decree which only incidentally concerns scientific atheism. On January 9, 1960 the Central Committee promulgated a decree 'On the Tasks of Party-Propaganda Today'.[12] Shortly thereafter, the editors of the *VF* published a *peredovaja* (lead-article or editorial) entitled 'For a Creative Elaboration of Problems of Scientific Atheism'[13], the main theme of which is that, although scientific-atheist work has been going well by and large in the recent past, there is not enough collaboration in this regard between the various academic disciplines. Thus, the sociologist and psychologist should be able to assist the atheist-activist by providing an analysis of the mentality of the Soviet citizen who is still a believer. The editors also point out that religion is

changing its face, especially by pretending that it can coexist with modern science and that it can loyally cooperate with socialism. These subterfuges have to be unmasked and it is suggested that this may best be done by carefully studying the dogmas and tactics of existing religions. Without going into too much detail, the editors also maintain that scientific atheism has to deal with matters which involve experts in ethics, epistemology, esthetics and other philosophical disciplines. The Central Committee's 'On Immediate Tasks of the Ideological Work of the Party' (June 21, 1963)[14] elicited another editorial from the *Voprosy filosofii*, entitled 'A Theory of Scientific Atheism for Today'.[15] A first section specifies the insufficiencies in scientific atheism to date while the second explains in detail how it is to henceforward be developed. In cataloguing the insufficiencies, the editors are very frank in stating that the November 1954 decree of the Central Committee simply has not been carried out. There have been some good books published (and they list some which we will classify as insignificant in the next section, *t.b.*) but the introduction of scientific atheism as a university and high-school course means that one will need more and better books and, above all, good courses. Authors have been writing on subjects with which they are not familiar; there has been no effort to understand religion and the complex mentality behind it; there are no basic works on the different varieties of religion and religious experience. Too many writers have been one-sided and vague in their treatment of questions while the enemy jumps on the smallest inaccuracy as an occasion to discredit scientific atheism. The editors of the *VF* go on in the second portion of the article to detail the questions and areas where immediate, atheist development is imperative. The emotional side of religion must be carefully examined. The activities of religious organizations must be catalogued. Special attention is to be paid to the changes currently going on in different religions. Atheism must show that no 'adaptation' to science or modern society can save religion; its duplicity, one-sidedness and contradictory character have to be scientifically exposed for all to see. Efforts at the 'cleansing' of religion are also to be showed to be vain. Atheists must know how to present their system of values (truth, honor, humanism, etc.) as far superior to that of any religion. By epistemological and logical analysis the atheist must show that religion's use of science is fraudulent, that all modern science confirms the philosophic bases (i.e. diamat) of scientific atheism. Further, extensive

sociological investigations are necessary to find the explanation for the vestiges of religion in the USSR. Such investigations into the causes of the persistence of religion have been few and of little scientific value. Since the object of investigation is here universal, all domains of scientific and philosophic activity must cooperate in the development of a sound scientific atheism. Students must be encouraged to do their research on questions of scientific atheism. Of the some 10000 dissertations defended in philosophy, history, law, pedagogy and art from 1955 to 1962, only 50 dealt with problems of scientific atheism.[16] Finally, all this activity will be coordinated by a special Institute of Atheism in the AON.

This, then, is the Party-line on scientific atheism. The gist of it is not hard to find: the Communist Party wants more and better from the theoreticians and, more particularly, from the philosophers. The specifically philosophic parts of these directives are not hard to find, either: dialectical materialism – especially epistemology and logic – and historical materialism are to provide a detailed analysis of religion, emphasizing contemporary religions, and of atheism for the express purpose of providing the propagators of scientific atheism with the conceptual tools necessary to convert religious believers from error to atheistic truth.

LITERATURE

Discussions on problems of scientific atheism have been relatively few and far between, another indication of the under-development of the field. And, most of the discussions there have been were devoted to practical matters of how to teach and spread the tenets of scientific atheism. Among the exceptions to this rule are the Ukrainian Republican Conference on Problems of Scientific Atheism (Kiev, June 9, 1959)[17], under the presidency of P. V. Kopnin, and the Seminar of Upper-School Teachers of the RSFSR on Questions of Scientific Atheism.[18] More important are the All-Union Meeting on Questions of Atheism, convoked in Moscow June 15 to 17, 1959, by the AN SSSR and the All-Union Society for the Propagation of Political and Scientific Knowledge[19] for which we lack the minutes, and the All-Union Meeting on Questions of the Elaboration and Propagation of Scientific Atheism in the Light of the Decisions of the Twenty-Second Congress of the KPSS (Moscow, February 1962).[20] This latter meeting was chaired by P. N. Fedoseev and attended by about

1000 persons. The list of speakers is imposing and follows quite closely the Party-line topics listed above. I. P. Camerjan, chairman of the Scientific-Methodological Soviet on Atheism of the Board of Directors of the All-Union Society for the Propagation of Political and Scientific Knowledge, spoke on the great importance of scientific atheism and on how Khrushchov was correct in saying that the work done was still insufficient. F. N. Oleščuk, an editor of *Science and Religion*, spoke of the need for more and better propaganda in favor of scientific atheism. L. N. Mitroxin, assistant director of the Agitprop section of Komsomol, insisted on the necessity for intensification of scientific-atheist work among the young. The editor-in-chief of *Science and Religion*, P. F. Kolonickij, discussed his publication plans. Movies, literature and radio (and television) were represented by R. V. Baxrax, S. L. L'vova, and D. P. Celiščev, respectively. The scale of these meetings shows that scientific atheism is being taken seriously even by the philosophers but the absence from them of any *quaestiones disputatae* shows that scientific atheism is really just beginning to develop – it is now at the point where diamat in general was about 1947.

Among the general reference works pertinent to scientific atheism the fourth edition (and the first through third, for that matter) of the *Short Philosophical Dictionary*[21] and the second edition of the *Great Soviet Encyclopedia*[22] are hopelessly dated – they belong wholly to the 'ideological' period. But, the fifth edition of the former, entitled *Philosophical Dictionary*[23], and the *Philosophical Encyclopedia*[24] provide a basically correct outline of scientific atheism as well as extensive documentation.

Interesting articles are sometimes to be found in *Questions of the History of Religion and Atheism*, published by the Institute of History of the AN SSSR.[25] The series began in 1950 and nine volumes of essays had been published by 1963. The articles of the *Yearbook of the Museum of the History of Religion and Atheism*[26], which was first published in 1957, are of less interest than the bibliographies which appear at the end of each volume. *Science and Religion*, a monthly publication, is of little interest to the scholar except as a running index of which elements of scientific atheism are seeping down to the people. Interesting articles, reviews and reports are to be found in *Voprosy filosofii* and *Filosofskie nauki* both of which began running special sections on atheism in their yearly indices as of 1960.[27]

Books and pamphlets on atheism and religion are legion in the Soviet Union. But, serious publications – i.e. serious even in the eyes of Soviet philosophers themselves – are a relatively recent phenomenon. Of the pre-1960 works about the only ones which retain any validity today are the collections of utterances of Marx, Engels and Lenin on religion and atheism – and even these have been superseded by the *O religii* mentioned below.[28] Among the works on scientific atheism which have appeared since 1960, four stand out: *Principles of Scientific Atheism*[29], *Basic Questions of Scientific Atheism*[30], *The History and Theory of Atheism*[31], and *On Religion. A Reader.*[32] *The History and Theory of Atheism*, which is by far the best that scientific atheists have produced up to now, finds a natural complement in the *On Religion*, the contents of which are arranged according to the same rather rational pattern. At the risk of overloading the present text with translated data, we will conclude with a listing of the four sections and thirty-seven chapters of *The History and Theory of Atheism*, since it not only outlines the basic content of contemporary Soviet scientific atheism but also provides an over-all view of the thematic material we will be handling in subsequent contributions to this series.

Introduction. Atheism as the System of Views Opposed to Religion (in three sections: Atheism as the Essential Component of the Scientific, Materialist *Weltanschauung*; Religion and Philosophic Idealism; The History of Atheism and Religion as the Expression of the Fight of the Inimical *Weltanschauungen*, Materialism and Idealism).

Section 1. Origins of Religion. Origins and Development of the Great Religions. *Ch. 1.* The Origins of Religion in Primitive Society (The Pre-Religious Era; The Origins of Religion and its Early Forms; Religion in the Era of the Downfall of Primitive Society and the Formation of Class-Society; Shamanism). *Ch. 2.* The Great Religions and their Particularities. *Ch. 3.* Buddhism and Lamaism. *Ch. 4.* Judaism. *Ch. 5.* Christianity (Social, Economic and Ideological Premisses of the Formation of Christianity; Early Christian Communities. The Appearance of the Church and Dogmatic Theology; Roman Catholicism; Protestantism; Orthodoxy; Russian Orthodoxy). *Ch. 6.* Islam (The Origins of Islam and its Social Role; Islamic Theology. The Koran; Basic Tendencies and Sects in Islam; Moslem Theology. Halam. Mysticism in Islam; Rites and Feasts of Islam. Saints; Pan-Islamism, its Sociological Base and Political Role).

Section 2. Pre-Marxist Atheism. *Ch. 7.* Rudimentary Atheism in the Ancient East. *Ch. 8.* Atheism in Antiquity (Ancient Mythology. Rudimentary Atheism During the Rise of the Ancient Greek Slave-Holding Democracies; Development of Atheism During the Flowering of Ancient Greek Democracy; The Fight Between Atheism and Religion During the Decline of Ancient Greek Slave-Holding Democracy; Atheism in the Hellinistic World and in Rome). *Ch. 9.* Heresies as Ideological Expression of Anti-Feudalism in the Middle Ages. *Ch. 10.* Elements of Atheism in the Philosophy of the Byzantine Renaissance. *Ch. 11.* Elements of Free-Thinking in Medieval Scholasticism (Realism and Nominalism; Conflict Between Realism and Nominalism in the Eleventh and Twelfth Centuries; Elements of Free-Thinking in Late Scholasticism). *Ch. 12.* Atheism During the Renaissance and Reformation (Humanism and the Reformation; Counter-Reformation; Italian Philosophy of Nature; The Fight Between the Church and Science). *Ch. 13.* Free-Thinking and Atheism in English Philosophy of the Seventeenth and Eighteenth Centuries (Elements of Atheism in the *Weltanschauung* of F. Bacon; The Anti-Clericalism and Atheism of T. Hobbes; English Deists and the Cambridge Platonists; John Locke's Position of Compromise; Bishop Berkeley's Attempt to Defend Religion; English Free-Thinkers of the Beginning of the Eighteenth Century). *Ch. 14.* The Atheism of Benedict Spinoza (Spinoza's Doctrine on Substance-God; Criticism of Religion). *Ch. 15.* The Development of Atheist Thought in France from the Sixteenth to the Eighteenth Centuries (Criticism of Religion and the Church in the Sixteenth and Seventeenth Centuries; Jean Meslier; French Deists; The Atheism of the French Materialists of the Eighteenth Century; Anti-Religious Ideas in the Works of the Minor Lights of the French Enlightenment). *Ch. 16.* German Enlighteners of the Eighteenth Century in Conflict with Religion and the Church (Predecessors of the German Enlighteners; The Anti-Clericalism of the German Democrats of the Eighteenth Century; Elements of Atheism in the *Weltanschauung* and Works of Lessing, Herder, Schiller and Goethe). *Ch. 17.* Problems of Religion and Atheism in German Classical Philosophy (I. Kant's Defence of Religion; Hegel's "Philosophy of Religion"; L. Feuerbach's Atheism). *Ch. 18.* Atheist Tendencies in the Social Thought of Russia of the Eighteenth Century (Free-Thinkers Among Peter's "Brigade of Scholars"; M. V. Lomonosov's Fight with Religion and the Church; The Atheism of A. N.

Radiščev). *Ch. 19.* Atheism in Nineteenth Century Russia (The Atheist and Anti-Clerical Views of the Decembrists; The Atheism of the Petraševists; The Atheism of the Russian Revolutionary Democrats; Criticism by the Revolutionary Democrats of Religious Conceptions on the Soul and Morality.

Section 3. Marxist-Leninist Atheism. *Ch. 20.* Marxism-Leninism on the Class Roots and Epistemological Roots of Religion. *Ch. 21.* Religion and Science (The Opposition Between Science and Religion; On the History of the Fight Between Science and Religion; Particularities of the Fight Between Science and Religion Today; The Irreconcilability of Science and Religion in Conceiving Social Life). *Ch. 22.* Religion and Morals (The Class-Historical Conditioning of the Norms of Religious Morality; The Anti-Scientific and Anti-Humanistic Character of Religious Morality; The Incompatibility of Religious and Communist Morals). *Ch. 23.* Religion and Art (Art in Conflict with Religion; The Rapprochement of Contemporary Bourgeois Art and Idealist Philosophy and Religion; The Role of Art in Scientific-Atheist Propaganda). *Ch. 24.* The Relation of the CPSU to Religion and Church. *Ch. 25.* The Guarantee of Genuine Freedom of Conscience in the USSR (Religious Freedom of Conscience in Capitalist Countries; Realization of Genuine Freedom of Conscience in the USSR). *Ch. 26.* Causes of the Existence of Religious Remnants Under Socialism.

Section 4. The Reactionary Essence of Contemporary Religious Ideology. *Ch. 27.* Causes for the Adaptation of Religious Organizations to the new Historical Conditions. *Ch. 28.* Efforts to Find a new, "Rational" Foundation for Religion. *Ch. 29.* Neo-Thomism as the Reactionary Ideology of Contemporary Catholicism (The "Union" of Reason and Faith, and Science and Religion, According to the Neo-Thomists; Neo-Thomism's Social Doctrine; Neo-Thomist Ethics). *Ch. 30.* Irrationalism in the Service of Religion. *Ch. 31.* The Ideology and Politics of Contemporary Catholicism (The Social Demagoguery of Catholicism; The Ideology and Politics of Catholic Parties; Catholicism in the USSR). *Ch. 32.* Ideological Currents in Contemporary Protestantism. *Ch. 33.* Missionaries and Colonialism. *Ch. 34.* Zionist Organizations and their Activities. *Ch. 35.* The Ideology of Contemporary Orthodoxy (Efforts at Adaptation of the Russian Orthodox Church to the new Historical Conditions in the USSR; Feeling and Rites in Contemporary Orthodoxy). *Ch. 36.* Christian

Sects in the USSR and their Ideology (General Description of the Activity and Ideology of Contemporary Christian Sects; Baptists; Adventists; Old Believers; Real-Orthodox; Pjatidesjatniki; Jehovah's Witnesses; Xlystovist Sects). *Ch. 37.* Communism and Religion.

This concludes our bibliographical and doxological introduction to contemporary Soviet scientific atheism. Subsequent articles will outline those doctrinal tenets of scientific atheism which make it what it is, and will provide criticism of them from a variety of viewpoints.

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2. *La faillite de la religion d'après Karl Marx.* Paris, PUF. 1963.
3. The key passage is to be found in the *Anti-Dühring:* "Now all religion is nothing else than the phantastic reflection, in the minds of men, of those external forces which dominate their everyday existence, a reflection in which the earthly forces assume the form of supernatural forces." Engels F.: *Herr Eugen Dühring's Revolution in Science.* Chicago, Kerr. 1935. p. 331.
4. In the following list, the number in parentheses after each title refers to the volume in the Russian fourth edition of Lenin's complete works where the item is to be found: 'Socializm i religija' (Socialism and Religion' (10); 'Ob otnošenii rabočej partii k religii' (On the Relation of the Workers' Party to Religion) (15); 'Klassy i partii v ix otnošenii k religii i cerkvi' (Classes and Parties in their Relations with Religion and Church) (15); *Materializm i empiriokriticizm* (Materialism and Empirio-Criticism) (14); 'O značenii voinstvujuščego materializma' (On the Importance of Militant Materialism) (33); 'Zadači sojuzov molodeži' (The Tasks of Youth Groups) (31).
5. 'O krupnyx nedostatkax v naučno-ateističeskoj propagande i merax eë uluščenija'. Postanovlenie CK KPSS 7 ijulja 1954 g. (On Enormous Insufficiencies in the Propagating of Scientific Atheism and on Measures for Ameliorating it. Decree of the CK KPSS of July 7, 1954). 'Ob ošibkax v provedenii naučno-ateističeskoj propagandy sredi naselenija'. Postanovlenie CK KPSS 10 nojabrja 1954 g. (On Mistakes in Carrying on Scientific-Atheist Propaganda Among the People. Decree of the KPSS of November 10, 1954). The text of both decrees can be found in *KPSS o kul'ture, prosveščenii i nauke* (The Communist Party of the Soviet Union on Culture, Education and Science), Moskva, Gospolitizdat, 1963.
6. *Soviet Theory of Knowledge.* Dordrecht, Reidel. 1964. p. 97ff.
7. There was an earlier decree, 'Ob organizacii naučno-prosvetitel'noj propagandy' (On the Organization of Scientific-Educational Propaganda), of September 1944, but it is seldom if ever quoted today and seems to have had little effect on scientific atheism at that time.
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14. 'Ob očerednyx zadačax ideologičeskoj raboty partii'. In: *KPSS o kul'ture, prosveščenii i nauke.* pp. 106–122.
15. 'Teoriju naučnogo ateizma – na uroven' sovremennyx trebovanij'. *VF* 1964, 5, 3–12.
16. *Ibid.*, p. 11. The statistics are further broken down by faculties and the authors add that even these few were badly written and mostly historical.
17. Cf. Prixod'ko, R. S.: 'Ukrainskaja respublikanskaja konferencija po voprosam naučnogo ateizma'. *FN* 1959, 4, 186–189.
18. Cf. Portnov, A. V.: 'Problemy naučnogo ateizma na seminare prepodavatelej vyššej školy RSFSR'. *FN* 1963, 2, 169–172. The only date given is "end of 1962".
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20. Cf. Ardab'ev, A. I., Gapočka, M. P., Suxov, A. D.: 'Vsesojuznoe soveščanie po ateizmu'. *VF* 1962, 8, 160–163. The same article describes a follow-up meeting of the coordination committee.
21. *Kratkij filosofskij slovar'.* Iz. 4-e. Moskva, Gospolitizdat. 1954.
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GERHARD GÖSSMANN

RECENT DISCUSSIONS ON THE MICRO-STRUCTURE OF SPACE AND TIME IN SOVIET PHILOSOPHY

I

The micro-structure of space and time is undoubtedly not one of the central problems considered by physicists. Since the formulation of quantum mechanics, perhaps not more than 30 papers have been published, dealing with this topic from the point of view of theoretical physics. During the same time, however, an immense number of papers on quantum field theory and elementary particle physics have appeared, applying the usually assumed framework of continuous and infinite space-time as formulated in the special theory of relativity. From the point of view of philosophy of nature, however, the micro-structure of space and time must be regarded as one of the fundamental problems in elementary particle physics. This is particularly true of dialectical materialist ontology, where space and time are regarded as "objective and real forms of existence of matter in motion".[1] It is not astonishing therefore, that this problem was discussed, among many others, at the conference on philosophical problems of elementary particle physics[2], which took place in Moscow, on the 25th and 26th of April, 1962, attended by more than 250 physicists and philosophers. In the Autumn of 1963, a collection of twenty papers, elaborated on the basis of the discussions at this conference, and a conference report by V. I. Skurlatov, was published in book form.[3]

II

First let us briefly consider the physical aspect of the problem. In elementary particle physics, numerous calculations lead to divergent integrals. That means that certain measurable physical quantities, which should of course be finite, become infinite. These difficulties led to the question, whether or not the usual concepts of space and time – namely continuous and infinite space and time – provide an adequate framework for the description of elementary particles. It is possible to conceive of

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finite or discrete space-time as well. But the first attempts in this direction, undertaken already in the thirties, proved to be unsuccessful. In 1947, however, the American physicist H. S. Snyder[4] succeeded in formulating a relativistic invariant space-time with a discrete spectrum for the space-coordinates and a continuous spectrum for the time-coordinate. But the application of this formulation to the theory of elementary particles did not seem to be fruitful. It was not before 1959 that this idea was taken up and generalized by the Soviet physicists J. A. Gol'fand[5] and V. G. Kadyševskij[6], but the investigations are still under way.

Much more fruitful, however, seems to be another idea, proposed in 1959 by the Canadian physicist H. R. Coish.[7] In this mathematical model, Coish assumes that the number of worldpoints should be finite, i.e., space-time is to be considered to consist of a very large, but finite number of discrete points. This idea was then further developed by the Soviet physicists I. S. Šapiro[8] and V. G. Kadyševskij.[9] Šapiro read a paper[10] on his model at the above mentioned Moscow conference on philosophical problems of elementary particle physics. The interesting point in the Coish-Šapiro hypothesis of discrete and finite space-time is, first of all, that there are no divergent integrals, for all integrals are converted into finite sums. Secondly, the very fact of the finiteness of world-points leads automatically to a number of symmetry properties of space-time, which do not appear in a continuous and infinite space-time and which are, at the same time, connected with certain quantum numbers and conservation laws for them, empirically found in elementary particle physics.

The close connection between the symmetry properties of space and time and the conservation laws of physics was already discovered in 1918 by the mathematician E. Noether. The famous Noether Theorem may be formulated as follows: If a law of nature is invariant under a certain symmetry operation, then a corresponding conservation law must be given. In this way, for instance, the conservation laws for energy, momentum, angular momentum and center of mass are derived from the homogeneity and isotropy of space-time.[11] In quantum mechanics, the conserved quantity may be quantized and thus characterized by certain quantum numbers, which are then likewise conserved, i.e., they become constants of motion. The inversion of the Noether Theorem may also be asserted: If a conservation law has been empirically determined, then the

reason for it must be sought in a certain symmetry property of the laws of nature. Yet, whereas it is always possible to deduce the conservation laws from the presupposed symmetry properties of space and time, it is impossible to do the contrary and deduce the symmetry properties of space and time from empirically-found conservation laws. This precisely is the situation in elementary particle physics, where – by means of the analysis of scattering reactions and disintegrations of particles – a lot of quantum numbers and conservation laws for them have been found, the physical significance of which, up to the present, is not clear.[12] In other words, the underlying symmetry properties of space and time are still unknown.

If there is a mathematical model which can account for some of these quantum numbers and interpret them in terms of certain symmetry properties of space and time, then such a model is worth being discussed, though the ideas sustaining it may seem strange and unusual. This is the case with the Coish-Šapiro hypothesis of finite and discrete space-time. This model can, however, account for the following empirically found quantum numbers and conservation laws:

1. the quantization and conservation of electrical charge;
2. the existence and conservation of the "baryonic" charge;
3. the existence and conservation of the "leptonic" charge;
4. the "law of combined inversion" (L. Landau[13]).

Despite the success of this model in the above respects, it is far from being perfected, and numerous open questions remain. For instance, no attempt has yet been made to formulate dynamic principles in the framework of this conception.

III

Proceeding now to the philosophical aspect of the problem, it appears rather strange that a physical hypothesis, which is by no means corroborated, is already discussed and interpreted by philosophers. One reason for this lies in the fact that dialectical materialism regards physics and philosophy as closely interconnected. This view was again emphasized by the Soviet physicist D. I. Bloxincev in his introductory words at the above mentioned conference. According to Skurlatov's conference report[14], "D. I. Bloxincev remarked, that the problems of elementary particle physics are inseparably connected with basic problems of philosophy.

As shown by the classics of Marxism-Leninism, materialism assumes a new form with every new success of science. The creation of quantum physics was an extraordinary success of science, revealing entirely unusual aspects of matter and showing the dialectical character of the micro-phenomena. Up to the present time, scientific materialism continues to assimilate and to more penetratingly understand the new situation, enriching and expanding its foundations. On the other hand, further penetration into the depths of matter, into the depths of elementary particles met with essential difficulties, demanding, in order that they may be overcome, a further 'dialectization' of physics. Therefore, dialectical materialism in its creative form may not only become a source of new physical ideas, notions and conceptions, but it must also be an original 'compass' of physics. If physics is giving birth to dialectical materialism, so dialectical materialism must, for its part, help at the birth of new physical theories. D. I. Bloxincev emphasized that in our times a further progress of either philosophical or physical thought is impossible without a close friendship and creative cooperation between physicists and philosophers".

In this sense, the hypothesis of Coish and Šapiro is discussed in a paper by R. A. Aronov.[15] According to Aronov, one of the fundamental axioms of modern elementary particle physics is contained in the view that the properties of space and time do not depend on the interaction of material objects. On the contrary: the properties of space and time are considered themselves to produce the properties of the interaction. This view is suggested by the Noether Theorem which allows the deduction of the conservation laws from the symmetry properties of space and time. It is easy to see that this conception is not a purely physical one but, surpassing the boundaries of physics, enters the field of speculative philosophy. According to Aronov, however, the fact of parity non-conservation in weak interactions[16] may be interpreted as meaning that there exists a certain dependence of the properties of space and time on the properties of material interactions. Aronov formulates his main thesis as follows: space and time are attributes of matter and cannot be identical in all their parts and in any interactions. That means that essentially different interactions give rise to essentially different properties of space and time. This view is also in agreement with the dialectical materialist doctrine on the correlation of space, time and matter. The Coish-Šapiro hypothesis of discrete

and finite space-time is then discussed in detail, following the formulation of Kadyševskij.[9] Aronov states that we have here a model of a pure discreteness, where the essentially different metrical properties of space and time in the sub-microworld are interpreted as the total absence of metrical properties.[17] The hypothesis of Coish and Šapiro is inspired by the well-known ideas of Riemann as formulated in his famous 'Habilitationsschrift'.[18] Riemann considered two mutually exclusive possibilities: a model of a pure continuity and a model of a pure discreteness, and showed that in the first case the metrical properties of space are determined by material interactions (an idea that has been further developed by Einstein in his general theory of relativity), whereas "in the case of a discrete manifold the principle of the metrical relations is already contained in this manifold". But in reality, according to Aronov, "both the metrical properties of space and its discreteness depend on the specific material interactions of the sub-microworld and consequently a model of a pure discreteness cannot correspond to space". Therefore the idea of a discrete and finite space-time can only be considered as a first step towards a future synthesis of the two models suggested by Riemann. Aronov closes his paper with the following words: "It is my deep conviction, that a further successful development of elementary particle physics is only possible on the basis of the dialectical materialist view on the correlation of space, time, and the motion of matter, applying the hypothesis of discreteness of space and time."

A more orthodox point of view was taken by I. V. Kuznecov (IF), who also discussed the Coish-Šapiro model. Unfortunately, the full text of his paper is not published, but is only reported by Skurlatov.[14] I. V. Kuznecov asserts that from the assumption of a finite number of points in space the conclusion that the material objects in the universe, or the universe itself, is finite, does not necessarily follow. The assumption of a finite number of points may be interpreted to mean that single elementary objects cannot exist independently, but only in an organic connection with a certain macroscopic complex of other elementary objects. Such a complex embraces a large number of elements and has a finite extension in space. A micro-object must not be considered without regard to its connection with such a complex. According to Kuznecov, the finite space in the Coish-Šapiro model is nothing but an individual, extremely large cell of the really infinite space of the universe. The universe itself

must be regarded as consisting of an infinite number of such cells. Under this assumption, the idea of the finiteness of space may be perfectly reconciled with the spatial infinity of the universe, as demanded by dialectical materialism. Applying such an approach, there remain no philosophical objections to the hypothesis of Coish and Šapiro, claims Kuznecov.

This method of reconciling the idea of finite space in the Coish-Šapiro model with the demand of infinite space in Marxist-Leninist philosophy, however, seems to be due to Šapiro himself, as reported by I. B. Novik (IF).[19] I. B. Novik discusses the Coish-Šapiro hypothesis from the methodological point of view. He emphasizes that the idea of discrete and finite space-time is not a fully elaborated theory, but only a preliminary model in the search for a radical solution of the difficulties encountered in elementary particle physics and quantum field theory. Novik says, "there are also certain methodological difficulties, connected with the problem of the finity-infinity relation. I. S. Šapiro believes that the idea of a world, constructed in such a way, that the infinite multitude of its elements is concentrated in periodically recurrent complexes, each containing a finite number of elements, may constitute a possible solution. This division of the finite and infinite is imaginable, but it presents only a preliminary interpretation of this difficult methodological problem."

IV

It seems, however, that the solution put forward by I. S. Šapiro and I. V. Kuznecov is by no mean convincing. The most interesting conclusions of the Coish-Šapiro model follow precisely from the assumption of the finiteness of world points. It seems difficult to say, how the basic conclusions are altered by the ad hoc hypothesis of the existence of an infinite number of such finite complexes, for the number of world points would then effectively be infinite. The additional hypothesis seems then to be indicated, according to which these complexes do not interact at all, or that this interaction is negligible.

Obviously the infinity of space and time as a consequence of the denial of supernatural being[1] is one of those basic tenets of Marxist-Leninist philosophy which can never be abandoned. Therefore all physical theories must be shown to be in agreement with this basic postulate. This fact

explains why specifically the hypothesis of Coish and Šapiro, which is only one of the numerous attempts to develop a consistent theory of elementary particles, is selected for detailed discussion by Soviet philosophers. Its initial idea of the finiteness of space-time is in clear contradiction to the infinity of space and time as demanded by dialectical materialism. Since the model of Coish and Šapiro allows several interesting and verifiable conclusions and since it may be developed further, dialectical materialists are compelled to search for a method to reconcile this model with the thesis of the infinity of space and time in dialectical materialism.

The standpoint of Aronov is, in comparison, more reasonable. First of all, the hypothesis of Coish and Šapiro is judged by him as what it in fact is, namely a model that is by no means fully developed, representing only a first step to further investigations, as Šapiro himself emphasized. Secondly, his thesis, according to which essentially different properties of space and time result from essentially different types of interaction, is very interesting and worth being discussed. However, he does not indicate how this idea should be applied to physical investigations. In theoretical physics, theories are generally formulated within a pre-established framework of space and time. It seems to be very difficult to reverse the procedure, taking a given interaction as premise and inferring from it the corresponding structure of space and time. It may be true of course, that the future theory of elementary particles must be sought in a synthesis of the two above mentioned ideas of Riemann, as suggested by Aronov.

Concluding these considerations I should emphasize that Bloxincev's assertion that the problems of elementary particle physics are inseparably connected with basic problems of philosophy, is certainly true with respect to ontology. In the subsequent remarks of Bloxincev, however, the new possibilities of research, gained by the suggested close collaboration between physicists and philosophers, are anew put in irons by the dogmatized basic tenets of dialectical materialism.

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Whereas Coish *(op. cit.)* demands that the finite world geometry should appear to be ordinary Euclidean geometry up to very large and down to very small distances, Šapiro asserts in Reference 8 that there are no distances whatsoever in this model.

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NOTES AND COMMENTS

MARXIST-LENINIST ETHICS: A REJOINDER

The conclusion of my article 'The Foundations of Marxist-Leninist Ethics' (*SST* III, 121–133) was that Soviet ethics had a long way to grow in clarifying and elucidating its basic concepts and claims. A. F. Šiškin's reply (*VF* 1964, 5, 108–112) not only confirms this evaluation but indicates that the much-needed growth will probably not come from Šiškin's labors. For while, to his credit, Šiškin can recognize a criticism when he sees one, he does not seem able to recognize an ambiguity, even when it is pointed out to him. He also seems unable to judge the pertinence of a reply, since he does not relevantly answer any of the objections or difficulties raised in my article. In general Šiškin's remarks fall into three groups.

The first are *ad hominem* statements to the effect that I do not share his faith in Communism and thus that I not only refuse to understand what is presumably self-evidently clear but that I strive to dishonor the classics of Marxism-Leninism; that the objectivity of my line of criticism is a mask, disguising the fact that I am an apologist of capitalism; and that my criticism is old hat. These remarks need little comment here. It is a pity that Marxist-Leninist philosophers, such as Šiškin, who speak so grandly of criticism and self-criticism, still suffer so acutely from symptoms of inferiority and persecution that any criticism is interpreted as an insult and a sign of bad faith. Marxist-Leninist philosophy, as any philosophy, must stand on the ground of rational intelligibility, if it is to be worth its salt. Šiškin admits that he takes for granted the truth of the assertions made in the Marxist-Leninist classics. If their truth is not a matter of faith, if they are amenable to rational demonstration, then Šiškin's job as a philosopher is to present this demonstration. It is not – as he does – merely to state that his critic does not share the Communist faith, or even worse, to imply that his critic is intellectually dishonest or basely motivated. If my criticism was indeed as old hat as Šiškin says, it is surprising that he spends five double-columned, closely printed pages answering it. Insofar as the criticism was tailored specifically to Šiškin's book, the criticism is as new and original as Šiškin's presentation.

A second group of Šiškin's comments refer to some of my charges of

lack of clarity. After blaming my difficulty on a self-imposed dullness of sight, he claims to clear up the difficulties. But he succeeds only either in reiterating his original position or in muddying the water. To take only one central issue, I argued that Communism cannot be taken as a proximate and useful norm of morality unless its meaning is first clearly elucidated. Like the principle of utility or the norm of rational human nature, it must be unambiguously stated before it can be utilized or intelligently discussed. In his reply Šiškin first admits the point, stressing that the meaning of Communism can only be made clearer as Communist society develops, and then immediately adds that the new Party Program defines Communism clearly enough for *him*. He completely ignores the crux of the issue, and makes no attempt to show how the norm, in its present vague state of definition, can be utilized in solving any concrete moral question. His reply to my question of the method by which the Communist Party decides the moral demands of Soviet society consists of an off-the-point anecdote, a claim that the method is found in *Capital*, and a repetition of the claim.

The third group of comments consists of an attempt to show that the lacunae which I pointed out in his text were not lacunae at all, but were questions or problems which he had answered. Some, such as my reference to the absence of any answer to the question "Why should I be moral?" were understandably misunderstood by Šiškin, since the references were at least in part to contemporary Western discussions. His answer to this question consists of the claim that the whole book shows why, and that society issues certain moral demands. He misses the fact that the point of the question is "Why should I pay attention to society's demands?" In other instances, despite his claims that he was defending Marxist-Leninist ethics and not his own book (here he protested too much), his replies seem to have been intended more against his Soviet critics than against his American critic. In answer to the question of how the criterion on Communism can be used to solve questions of sexual morality Šiškin directs me to Engels' *The Origins of the Family, Private Property and the State*. It is strange that with this document as a guide the Soviet policy on free love and birth control has vacillated so since the Revolution. I also doubt that Šiškin's reply will satisfy his Leningrad colleagues who claim that moral problems of love and sex in Communist society have still to be resolved.

Šiškin's reply to my article may have satisfied the Party's demand for vigilance on the ideological front and for the refutation of bourgeois ideas. It ignores, however, the Party's more difficult demands for creativity in the development and presentation of Marxist-Leninist theory. Hopefully the clarification necessary to raise the level of Marxist-Leninist discussions of ethical problems will come from the work of those Soviet philosophers who, unlike Šiškin, have already given evidence of their appreciation of the increased precision which follows from careful analysis of concepts.

Richard T. De George

NEW LENIN DOCUMENTATION

G. Haupt has performed a service to Leninologists in producing *Correspondance Entre Lénine et Camille Huysmans 1905–1914* (Editions Mouton, Paris, 1963, 165 pp.). The book is not of much interest to Sovietologists in philosophy, but it should appeal considerably to the historian in this field since it casts a great deal of light on the relatively obscure area of relations between the Russian Social-Democrat Party and the Bureau Socialiste International. When the delegate of the former and the Secretary of the latter are V. I. Lenin and Camille Huysmans, the exchanges become of more than a passing concern, particularly as most of the texts have never been published before, not even in the *Sočinenie*. G. Haupt and his Section VI (Sciences Economiques et Sociales) of the Ecole Pratique des Hautes Etudes at the Sorbonne deserve professional praise for their painstaking attention to details and documentation, and for the astute commentaries. The book is additionally enhanced by having been re-read and prefaced by one of the principals involved, M. Huysmans himself.

Pierre Beemans

MARX AND RELIGION

N. Lobkowicz's "Karl Marx's Attitude Toward Religion" (*The Review of Politics* 26 (1964) 3, 319–352), in spite of its Marxological nature, is highly relevant to the study of Soviet and, more generally, Communist attitude in that respect. The author shows convincingly how, in spite of of the radical difference between Marx and his Soviet followers, there is

a continuity of thought: also the various (complex) rotes of Marx's anti-religious doctrines are very well disentangled. This is one of the best studies ever written on the subject. *J.M.B.*

COMINTERN HISTORY

James W. Hulse of the University of Nevada published a historical study on the first 15 months of the Comintern: *The Forming of the Communist International.* Stanford University Press, Stanford, California. 1964, 275 + VII pp. $ 6.50.

In this book Hulse tells the story of the emerging Communist movements and parties outside Russia and of their Kremlin-run efforts of unification from the First through the Second Congress of the Communist or Third International, i.e. from March 1919 till August 1920. Hulse gives a detailed account of the organizational and ideological discussions which raged within the old Socialist Parties of most European countries, their more revolutionary left wings or split off fractions. Lenin and his followers had declared that the Second International was dead, since it had failed to keep Socialist internationalism alive through World War I, and they started to build the Comintern under their own leadership and along the lines of their own, i.e. the Soviet foreign policy.

In the analysis of his rich material Hulse reaches the conclusion, that the period studied was crucial for the development of international Communism. At the time of the First Congress, Communist leaders in Moscow mainly aimed at propaganda, at spreading the spark of Marxism into the working classes of industrialized countries with the expected immediate result of world revolution. By the summer of 1920 they had learned, that in addition to their messianic idea they needed a solid centralized institution and rigid organization in order to bring about by political manipulation what was slow to spring up from the predicted internal necessity of history. This is certainly an interesting turning point in the ideological development of Communism, one of the 'readjustments' of Marxism.

Wolfhart F. Boeselager

SOVIET PLANNING

Soviet Planning, edited by Jane Degras and Alec Nove (Oxford, Basil

Blackwell, 1964, 225 pp.), contains nine essays about different aspects of Soviet planning and one about the person of Naum Jasny, in whose honour this book has been published. Friends and fellow economists have joined to celebrate the eightieth birthday of Naum Jasny by publishing a book dedicated to this outstanding scholar, to whom "'to seek the truth and nothing but the truth' is no platitude but a veritable gospel". Naum Jasny, who, from the very beginning of his career was a specialist in agricultural economics, made pioneering studies in the field of Soviet economy. He was one of the first scholars to point to the fact that not the targets of the Five Year Plans but those of the current year were relevant in the planned economy of the Soviet Union.

The American and English authors of the papers of *Soviet Planning*, among whom we note Alec Nove, Colin Clark and Peter Wiles produce some very interesting insights into planning problems of the Soviet Union.

As this book does not give an elementary description of the functioning of a planned economy, it will be of great advantage to those readers who are already acquainted with this subject. *Soviet Planning* represents a balanced compound between the analysis of some elements of practical relevance in planning and that of the theoretical and political motivations underlying it. The fact that the determination of elementary purposes in a Soviet-type economy remains a privileged matter of the political leadership, which pretends now as ever to lead the people to "Communism", shows that basic economic problems are still considered to be part of the ideological realm.

It would not have been unuseful to find a chapter about the often noticed disparity between the actual Soviet planning and the practical performance of plan data.

This remarkable series of essays which comprehends a great deal of useful information undoubtedly redounds to Naum Jasny's honour.

B. Rüegg

REVIEWS

József Ujfalussy: *A valóság zenei képe. A zene müvészi jelentésének logikája* (The Musical Image of Reality. Logic of the Meaning of Musical Art). Budapest, Zenemükiado Vállalat, 1962. 173 pp.

Ujfalussy's book may be called an important contribution to a rather neglected field – music-aesthetics – under any criterion of excellence of exposition and profundity of thought, though not under all criteria of the truth of his framework of reference. The framework of reference is Marxism-Leninism, and it is the interesting feature of the work that although the author intended above all to contribute to Marxist-Leninist aesthetics, his main contribution is to clear up some problems pertaining to the aesthetics of music itself. There is no doubt about Ujfalussy's purposes in presenting this study: it is to provide the missing link between the general (and rather vague) assertions of socialist-realist aesthetics concerning music, and independent, 'professional' musicology, by a study of the topic 'from below' i.e. from the side of musicology. He thus attempts to work his way through to the general system of assumptions incorporated by socialist realism, rather than working his way down from them, to musical theory.

Ujfalussy sees his principal task to lie in remedying a culture-political situation. Due partially to the bourgeois upbringing of much of Hungary's musicians and music lovers and partially to the general opinion that Marxism-Leninism is an economic and political doctrine having no relevance and access to art, most people refuse to take interest in the socialist realist theory of music. If the effectiveness of our music-aesthetics (says the author) is limited only by such ideological inhibitions, our task is merely to educate and promote, and thus to convince doubters of the correctness of our standpoint. But there are distinct signs that our weapons are insufficiently developed, making it difficult for us to validate, in the eyes of the public, the socialist realist interpretation of music. It is significant that even persons acquainted with Marxist-Leninist theory of literature tend to take cognisance of music's capacity to reflect reality only 'globally', as a result of their general convictions. How this reflection occurs is not evident for them; it appears to be enveloped in the haze of mysticism (pp. 13–14). Ujfalussy's task is stated to lie in perfecting the conceptual weapons of socialist realist theory of music in order to overcome the deplored standpoint of Hungary's musically interested public.

Since Ujfalussy is an expert musicologist and a trained aesthetician (he is Professor of Aesthetics at the Franz Liszt Academy of Music in Budapest) he is well qualified to undertake this task. His program, exposed in his book, may be resumed as the attempt to analyse music theory with the concepts of historicism and realism, and to come up thereby with a set of conclusions defining the key-concept which could integrate music-aesthetics, from the immanent side of musicology, in the general philosophical framework of socialist realism.

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Ujfalussy's key-concept is "intonation". In this, he follows the lead of Soviet aestheticians, several of whom he explicitly refers to (e.g. Asaf'ev) but he claims to define the concept and determine the principles for which it stands better than they. The investigations which lead ultimately to the definition of 'intonation' are compact, but thorough. They prompt Ujfalussy to consider successively: the objective sources of music in human activity; the evolution of the musical tone; the natural and social factors of the logic of melody; the unity of space, time, and occurrence in the meaning of the musical image; the semantic values of polyphony; the direct connections of the musical image and particular meanings of experienced reality; and the historical problems of the intonational assessment of the musical image. Of particular value in these investigations is Ujfalussy's treatment of the relation of music and movement, and his demonstration of the spatial character of the musical image. The detailed, and sufficiently (if not abundantly) illustrated contentions concerning the diverse meanings of particular motifs, melodic, harmonious and rhythmic sequences as 'reflecting' objective reality, are most interesting, but for the Western reader not as evident as for Marxist-Leninists. Ujfalussy succeeds in integrating his various findings in the encompassing concept of 'intonation', meaning for him the set of musical forms and styles which correspond to given historical and social milieus.

The transition between meticulous analysis and large-scale synthesis would be surprising, were it not for the unity of the heuristic tools of the analysis and the framework of reference of the ultimate synthesis. Since historical-social determination and music's capacity to reflect reality are presupposed in the analyses, the conclusions fit with ease into their desired niche in the general socialist-realist scheme: music is the expression by particular peoples and specific dominant classes (in their historical epoch) of their historically-socially conditioned view of reality. 'Intonation' is to stand for the correspondence of a given piece of music and its determinant human setting. This inclusive synthesis is the conclusion desired by the author, and is derived from his analytic investigations of realistic meaning in music. The investigations themselves may be summarized, according to the conclusions reached, as follows.

1. *The conjunction of musical space-time signification with external spatio-temporal phenomena.* (a) The set of music's spatially projected external associations involving the association of acoustic percepts with visual ones, and resulting in the perception of spatiality in the musical image (the interaction of percepts is explained by reference to the Pavlovian theory of neuro-physiological processes); (b) the inarticulate musical image of motion, associative of the muscular activity involved in life-functions.

2. *The sensory associations of music relevant to object-qualities.* (a) The immediate signification of tone-colour effects, the imitation of natural sounds, and the sphere of vocal-associations of instrumental music; (b) the utilization of imitated natural sounds as musical motif, and their direct signification of objects.

3. *The associated content of meaning of musical images as forming a complex unity with their own social milieu.* (a) the form-determinant role of music of habitual tone-colour patterns and of habitual use of instruments ('habitual' stands for typical for the given historical epoch and social stratum); (b) the adoption of specific musical forms and styles typical of particular peoples (epochs, classes) as characterizing musical imagery; (c) the integration of musical form and style in an image-system representing music's social-intonational meaning.

Section III progresses rapidly from analysis in a specific context to synthesis, through the increasing use of historical materialist doctrines. The synthesis is not necessarily false, but would require considerably more demonstration than is provided by Ujfalussy to convince anyone not already convinced of the truth of historical materialism. Thus it comes about that "intonation" is rather presumptuously defined as that intermediary category which dialectically resolves in art the fluid and living connection between its naturally given means, and the human-artistic signification on the level of social objectivity. It is compared to, and substantiated by, historical materialism's "society" which, in Ujfalussy's words, is, the category resolving traditional contradictions between particular and general, subjective and objective, natural and individually-human, descriptive and expressive, individual and social, accidental and humanly necessary. If the problematic transposition of Hegelian dialectic to Marxist materialism is accepted, Ujfalussy's 'intonation' becomes, as he claims, the category which on the one hand unites the complex unity of musical meaning with its natural, social and individual determinations, and on the other hand provides the starting point for further probings in the socialist-realist interpretation of music.

Notwithstanding the somewhat presumptuous use of Marxist-Leninist categories (for which a sincere Marxist-Leninist aesthetician could hardly be reproached) Ujfalussy's work is refreshingly different from others of its kind, since he uses his philosophical convictions merely as a set of heuristic axioms in the detailed analysis of the genus of musical facts, and not as the full and sufficient premisses for their explanation. On the whole, Ujfalussy does not argue *from* socialist realism: he argues *to* it. That he does so with the conviction that music reflects reality and that it reflects it through the optic of a definite historical and social perspective means that to the extent to which these assumptions are borrowed from Marxist-Leninist philosophy before they are proven in the investigations, his argumentation can be reproached with a certain circularity: it assumes as premisses some of the conclusions to be proven. But, aside from the consideration that Ujfalussy's assumptions are significantly less than those of most of his colleagues, it is also open to question whether some such (or different) basic assumptions can at all be disposed of in aesthetic investigation. It would only seem evident that they should not be assumed as unquestionable truths before adducing sufficient evidence for them, but be clearly labelled 'methodological hypotheses'.

If the reader takes Ujfalussy's culture-historicism and dialectical-realism as components of such a methodological hypothesis, his work will appear to him as a valuable demonstration that even if the study of musical compositions and theories does not immediately prove, or even entail the acceptance of, socialist realism, there undoubtedly are important aspects of music which are analyzable to the influence of historical-social factors, and that much of music signifies, in its own way, man's cognisance of his environment. Since it is precisely these factors in the meaning of music that suffer from neglect at the hands of Western aestheticians, it is to be hoped that a translation into a language making this book accessible to Western readers will be forthcoming.

Ervin Laszlo

Gotthard Günther: *Das Bewußtsein der Maschinen. Eine Metaphysik der Kybernetik*. Krefeld und Baden-Baden, Agis-Verlag. 1963. 213 S.

Sein 1957 unter dem gleichen Titel erschienenes Buch hat G. Günther beträchtlich erweitert, insbesondere, was hier vor allem interessiert, einen dritten Teil, der von der Kontroverse zwischen Idealismus und dialektischem Materialismus in kybernetischer Sicht handelt, hinzugefügt. Er bedauert, nicht auch seine Gedanken zu einer Geschichtsmetaphysik der Kybernetik vorlegen zu können, zu einem Thema also, das er für wichtig hält "angesichts des Zieles mancher russischer Kybernetiker, die menschliche Gesellschaft und ihre Zukunft einer kybernetischen Kontrolle zu unterwerfen." (S. 12) (Als ähnlich allgemeinen Gegenpart dieser westlichen Ansicht kann man die in der sowjetischen Literatur anzutreffende Meinung ansehen, in kapitalistischen Ländern würde die Kybernetik häufig als Allheilmittel betrachtet.)* Der dritte Teil "ist unter dem Eindruck geschrieben, daß der ideologische Gegensatz zwischen objektivem Idealismus und dialektischem Materialismus weltanschaulich überholt ist", denn "kein Kybernetiker, der sich der Theorie komputierender und selbst-reflektierender Systeme bewußt ist, kann sich heute noch für den Idealismus oder den Materialismus entscheiden". (15). (Man mag versucht sein, den Grund dafür in der auch sonst feststellbaren weitgehenden Neutralität besonders der exakten Wissenschaften gegenüber Weltanschauungen zu sehen. Jedoch nach Günther geht es hier um die von der Kybernetik implizierte neue Bewußtseinslage.) Objektiver Idealismus und dialektischer Materialismus sind dabei für ihn – und dies ist für das folgende wohl zu beachten – "logische Idealtypen des Denkens, . . . (die natürlich) . . .nirgends rein verwirklicht sind". (15) "Und irrelevant ist auch die zufällige geographische Verteilung . . ." (16). Dabei ist selbstverständlich, daß ein solches "Bild vom dialektischen Materialismus im Osten verworfen werden wird". (17).

Eine Fülle interessanter Gedanken findet man in Günthers Buch, doch sind manche Überlegungen *per analogiam* sowie einige logische Konstruktionen und deren Interpretation – vielleicht nur wegen der absichtlich einfachen Darstellung – nicht eben zwingend. Der erste Teil befaßt sich mit dem Aufzeigen von einander entsprechenden Übergängen, die im modernen Denken notwendig geworden sind; nämlich den Übergängen vom dualen Denken zu einem drei- oder mehrwertigen kybernetischen Denken, von der zweiwertigen Logik zu einer dreiwertigen nicht-aristotelischen Logik, von der Aufspaltung in Ich – Es bzw. Subjekt – Objekt zu einer solchen in Ich – Du – Es bzw. Subjektivität – Prozess – Objektivität, von der Dichotomie von Materie und Geist zur Trinität von Materie, Information und Geist. Eine zentrale Rolle spielt im ganzen Buche der Begriff der Reflexion, bei dessen Analyse, die man vor allem im zweiten Teil findet, und in dessen Verwendung Günther sich – wie auch in seiner als

* Anmerkungen in runden Klammern stammen vom Rezensenten.

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durchgehenden Grundzug spürbaren engen Verknüpfung von Logik und Metaphysik – stark an Hegel orientiert hat.

Im zweiten Teil vergleicht Günther die Beziehungen zwischen einwertigem göttlichem und zweiwertigem menschlichem Sinneserleben mit der Beziehung zwischen letzterem und dreiwertigem maschinellem Sinneserleben, auf die er bei seinen Erörterungen über dreiwertige Logik kommt, die ja eine doppelte Reflexion möglich macht. Auf diesem Wege gelangt er zur These: "Es gibt eine Gestalt der Reflexion, die weder im Ich noch im Du lokalisiert ist, sondern die erst im Es, d.h. im Gegenstand, auftritt." (71). Im dualistischen Weltbild gab es zur Schließung des "Abgrundes zwischen der toten Irreflexivität und der lebendigen Reflexion" (85) im wesentlichen die beiden weltfremden Lösungen der Jenseitsreligionen: das ist einerseits die Lösung der ewigen Ruhe, die der objektiven Seins-Transzendenz entspricht, und andrerseits die des ewigen Lebens, welche sich auf die subjektive "Intro-szendenz" stellt. Günther sieht jetzt eine weitere Möglichkeit, die eine dritte, die "mittlere" Transzendenz berücksichtigt, "die dadurch entsteht, daß Mechanismus und Seele in einer unendlichen gegenläufigen Bewegung befangen sind". (86).

Diese Erörterungen und Schlußfolgerungen bilden die Grundlage für den im dritten Teil vorgenommenen Vergleich zwischen objektivem Idealismus und dialektischem Materialismus. Der Gang der Überlegung ist kurz, mit geschichtlichen Verweisen beginnend, der folgende: Das für alle Hochkulturen charakteristische "Erlebnis eines nicht auslotbaren Abgrundes zwischen ... der Subjektivität (des Ichs) und der Objektivität der Seins", des "Dualismus von Seele und Welt", "hat überall ein in seinem letzten Kern dualistisches [zweiwertiges] Weltbild produziert", (89) und "schon bei Plato ist die Aussichtslosigkeit ... (der) Versuche, auf dem Boden einer zweiwertigen Logik ein monistisches Weltbild zu konstruieren, deutlich sichtbar". (90). "In der Hegelschen Philosophie überschlägt sich" die Verschärfung des dualistischen Denkens "schließlich und führt zu einer gänzlich neuen Fragestellung ... Man entdeckt, daß zwei sehr verschiedene Dualismen (der der Bewußtseinsinhalte, des Seins, und der der Reflexionsprozeße, des Sinns) ineinanderspielen ..." (91). Und damit ist es "unmöglich geworden, sich zu ... (dem) Glauben", "daß zwischen den alternativen Seiten einer Dualität die Möglichkeit einer echten Entscheidung bestünde, in der die praktische Richtigkeit des Handelns ganz mit der theoretischen Wahrheit des Denkens zusammenfallen würde", "auch heute noch zu bekennen." (94). "Umso ... beschämender ist es, daß die sich an Hegel anschließenden philosophischen Schulen, in dualistische Denkgewohnheiten zurückfallend, sein System in einen "rechten" und einen "linken" Hegel aufbrachen". (94, 95). "...wenn sich in letzter Zeit eine Wandlung zeigt, so ist sie ... den Kybernetikern zu verdanken. In der Kybernetik wird nämlich ... mit der Idee Hegels, daß die Reflexion wesentlich ein Realprozeß ist, ernst gemacht, wenn systematisch versucht wird, Bewußtseinsprozesse in Analogieform auf Maschinen zu übertragen.... Die Folge davon ist, daß auch die letzte heute noch wirksame Antithese des dualistischen Denkens (von objektivem

Idealismus und dialektischem Materialismus) unwiderruflich zum Verschwinden verurteilt ist.... der Gebrauch der Adjektive (weist) bereits darauf hin, daß dieser Gegensatz eine Geschichte besitzt,..." (95), in der "sich die unsymmetrische Verteilung der reflexiven Akzente des Denkens allmählich ausgleicht." (96). "Von dem Augenblick an, in dem man die metaphysische Äquivalenz von Stoff und Form, von Irreflexivität und Reflexivität, von Subjekt und Objekt vorbehaltlos anerkennt, entpuppen sich Idealismus und dialektischer Materialismus als ein- und dieselbe Weltanschauung, aber dargestellt von zwei sich gegenseitig ausschließenden Standpunkten, ... das philosophische Denken (muß) nach neuen Formeln suchen (, was) aber nicht mehr auf dem Wege einer in den Bewußtseinsraum eingeschlossenen theoretischen Reflexion allein erfolgen kann ... Der ersten, klassischen Reflexion, ..., muß eine zweite ergänzende an die Seite treten, die die Materie derart verändert, daß in ihr das Objekt den ihm möglichen Anteil an der Reflexion übernimmt." (108).

Der metaphysische Grund der Gleichwertigkeit der beiden Weltanschauungen besteht darin, "daß allem Bewußtsein ... ein primordiales *X* vorausgeht, das als Einheit von Nicht-Reflexion und Reflexion verstanden werden muß" (114), "ein metaphysisches Sammelbecken ..., das schließlich alles umfaßt [incl. Information]" (117), "das die eine Partei Materie und die andere Geist zu nennen wünscht, ... (und demzufolge) die beiden philosophischen Theorien ... ihrerseits in einem dialektischen Verhältnis zueinander stehen". (115). Es sind "zwei komplementäre und deshalb voneinander unabtrennbare Geisteshaltungen. ...: es ist durchaus möglich, die idealistische Terminologie in die eines intelligenten dialektischen Materialismus zu übersetzen und umgekehrt. Leider haben das die östlichen Kollegen noch nicht eingesehen!" (119) (Einen vergleichbaren Gedanken, jedoch auf tieferer "Reflexionsstufe" und deshalb weniger radikal, findet man in sowjetischen Arbeiten, wenn dort vom spontanen Materialismus westlicher Wissenschaftler die Rede ist.) Aus der Analyse der Überlegungen Hegels über das Selbstbewußtsein zieht Günther die Konsequenz, "daß das Verhältnis von transzendentalem Idealismus und dialektischem Materialismus genau dem Gegensatz von Ich- und Du-Subjektivität entspricht. ... Beide Standpunkte sind von der gleichen Einseitigkeit". (140). "Der gegenwärtige ideologische Streit zwischen Ost und West beruht im Grunde auf einer ... Verwechslung des Umtauschverhältnisses ebenbürtiger Reflexionsstandpunkte mit einem Proportionsverhältnis, in dem die eine Seite mehr Recht haben muß als die andere. ... Der logisch-metaphysische Irrtum, der begangen wird, wenn man die eine (Position) theoretisch über die andere stellt, beruht auf der heute noch weit verbreiteten Auffassung, daß zwischen Reflexionsprozeß und Reflexionsinhalt ... die Unterscheidung ... eindeutig ist." (146).

Den Sinn der Kybernetik sieht Günther einmal darin, "daß der Mensch aufhört, sich ein Bild seiner selbst bloß in Gedanken zu machen ...", denn die "Reflexionseigenschaft in der Materialität kommt erst dadurch zum Vorschein, daß die Welt bearbeitet und verändert wird", (107) und daß die Kybernetik sich damit immer deutlicher in Richtung der schon erwähnten zweiten Reflexion

des Handelns bewegt, die die erste klassische Reflexion ergänzen soll. (108). Bezüglich der Unmöglichkeit einer Entscheidung für eines der komplementären Weltbilder "stellt die Kybernetik mit ihrer Theorie der selbstreflektierenden Systeme fest ..." (148): "Man kann ... das Alternativverhältnis von zwei Werten akzeptieren oder aber als Ganzes verwerfen." (149). "Damit ist aber eine Bewußtseinsstufe erreicht, die alle bisherige Weltreflexion als Ausdruck einer vergangenen Form der Selbstreflexion betrachtet, die jetzt zum [untergeordneten] Inhalt eines neuen Selbstreflektierens geworden ist. Das ist der Standpunkt, den die Kybernetik gegenüber dem ideologischen Streit zwischen Ost und West einnimmt." (150).

"Das Gesamtbild, das der Mensch von sich in der Reflexion besitzt, ist in Frage gestellt und die veränderte Rolle, die die technischen Einrichtungen und Denkweisen in der Welt zu spielen beginnen, zwingen ihn zu einer neuen Besinnung auf sein Wesen." (137). Es ist notwendig "zu begreifen, daß der dialektische Materialismus gegenüber dem, was uns von Seiten der Technik bevorsteht, viel besser gerüstet ist als das idealistische Denken". (138). In seinem Einflußbereich sind auf Grund seiner "materialistischen, d.h. objektivierenden Betrachtungsweise" "Geschichts- und Gesellschaftsmetaphysik [obwohl der Name verpönt ist] und Kybernetik schon enge Verbündete". (139). Günther weist in diesem Zusammenhang auf die "terminologische Affinität zwischen der Kybernetik und dem dialektischen Materialismus" (107) hin, die ihren Grund bei Marx und seiner hohen Bewertung von Praxis, Handeln und Verändern hat. Doch indem der dialektische Materialismus "dem Stoff ein metaphysisches Übergewicht über die Form (gibt) ..., begeht (er) wieder den alten Fehler des Idealismus, nur diesmal mit umgekehrtem Vorzeichen". (108). Günther zitiert zum Nachweis dieser Verwandtschaft aus einer polnischen Arbeit von Oskar Lange, der davon spricht, daß zusammen mit der Kybernetik heute eine "Denkapparatur" (109) gebildet wird, die frei ist von den Mängeln einer finalistischen bzw. mechanistischen Denkweise, weiter aus "Subjekt und Objekt" Überlegungen Ernst Blochs über die Frage, ob der Stoff denkt (113), schließlich insbesondere zwei Gedanken aus russischen Arbeiten von I. B. Novik: Der eine geht letztlich auf Lenins "hypothetical property of reflection inherent in all matter as a whole" (Günther zitiert nach einer amerikanischen Übersetzung) (109) zurück, der andere beschäftigt sich mit dem Begriff der Vermittlung: "Der Automat ist nichts anderes als ein Verbindungsglied in der geschlossenen Kette Mensch – Natur." (111). Günther sieht darin eine Parallele zum Begriff der Vermittlung in der transzendental-dialektischen Logik (110) und in der Trinität der Begriffe Mensch – Automat – Natur "eine genaue Bestätigung seiner logischen Unterscheidung von Seinsidentität, Transzendentalidentität und Reflexionsidentität." (111) (wegen der schon erwähnten, durch die Kybernetik sichtbar gewordenen dritten metaphysischen Komponente gibt es drei Identitätsbeziehungen: die angeführten sind die zwischen Paaren des Begriffstripel Objekt – Reflexionsprozess – Subjekt (38)).

Die Güntherschen Schlußfolgerungen bzgl. der aktuellen Auseinandersetzung

zwischen Ost und West verlieren dadurch etwas an Gewicht, daß dem gezogenen Vergleich, wie vorne besonders betont wurde, Idealtypen der Weltanschauungen zugrundegelegt wurden, womit man einmal vor allem der westlichen Situation in der Philosophie mit ihrer Spaltung in sehr verschiedene Lager nicht gerecht werden kann, dann aber auch den dialektischen Materialismus in mehr oder weniger verzerrter Form repräsentiert. Diesem Einwand tritt Günther mit der Feststellung gleichsam entgegen, daß "die Sicht auf die Welt, die die Kybernetik bietet, so neu ist und eine so grundsätzliche Trennung von der Tradition unseres bisherigen Denkens bedeutet, daß die auf diesem Gebiet wirkenden Gelehrten mit einer spezifischen Schwierigkeit zu kämpfen haben. Sieht man von dem elementaren technischen Niveau ab, so ist der Begriffsvorrat, der dem kybernetischen Denken auf beiden Seiten zur Verfügung steht, denkbar ungeeignet das, was gesagt werden soll auszudrücken". (111, 112). Sobald man jedoch östliche Quellen zitiert, kann man nicht umhin, auf die tatsächliche Situation Rücksicht zu nehmen: So versteht sich der dialektische Materialismus ja viel eher als Erkenntnistheorie und eigentlich nie explizit als eine Metaphysik; als Gegner in der vorliegenden Erörterung sieht er den subjektiven Idealismus, als welcher auch jeweils die westliche Position "entlarvt" und bekämpft werden soll. Die derart gestellte Aufgabe zeigt – Günther schreibt dies auch –, daß die beiden Standpunkte als miteinander unverträglich aber entscheidbar angesehen werden. Da diese Erkenntnistheorie im Grunde realistisch ist, liegt ihr die in dem Buche umrissene "kybernetische" Bewußtseinslage ziemlich fern: Der Begriff der Reflexion, der eben als erkenntnistheoretischer Begriff im dialektischen Materialismus eine Rolle spielt, hat wenig mit demselben Ausdruck bei Hegel zu tun. Man spricht ja im dialektischen Materialismus auch weit eher von Widerspiegelung und versteht darunter auf der untersten, anorganischen Stufe Eindrücke und Spuren von Einwirkungen, auf höchster mentaler Stufe die Widerspiegelung der objektiven Dialektik (etwa der Naturvorgänge) durch die subjektive Dialektik (Bewußtseinsvorgänge). Günthers "Aufwertung" des dialektischen Materialismus zur Metaphysik hat wahrscheinlich darin seine Ursache, daß im Englischen für Reflexion und auch für Widerspiegelung dasselbe Wort "reflection" gebraucht wird. Auch schreibt Lenin nirgends, daß die Materie *Selbst*reflexion besitzt. (143). Entsprechendes wäre über den Begriff der Vermittlung zu sagen, die im angeführten Zusammenhange bei Novik als "werkzeugliche" verstanden werden muß.

Man könnte noch auf eine Parallelität bzgl. des Vergleichs von Mensch und Maschine hinweisen: Günther spricht von der beständigen geschichts-metaphysischen Differenz zwischen ihnen und meint damit ungefähr dasselbe wie Novik, für welchen ebenfalls der Mensch stets der "vorauseilende Faktor" bleibt. Für Günther kommt noch der erwähnte ontologische Unterschied in der Wertigkeit des Sinneserlebens, für Novik noch das soziologische Relat der Menschheit als ganzer hinzu.

P. Kirschenmann

SOVIET WRITINGS ON ATHEISM AND RELIGION

This bibliography covers all the major works written in the Soviet Union in Russian on atheism and religion from 1947 until 1964, as well as a representative selection of minor works. It was composed from the *Bibliographie der sowjetischen Philosophie I–IV*, the articles and book-lists in the *Voprosy filosofii* and *Filosofskie nauki*, and the extensive bibliographies in each volume of *Ežegodnik muzeja istorii religii i ateizma*. Supplementary listings as well as more ample descriptions are to be found in the last-named. The abbreviations are those of *SST* and *Bibliographie der sowjetischen Philosophie*, and can also be found on p. 84 of *SST* III (1963). Parenthetical references are to this list; italicized numerals refer to the *Bibliographie*.

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Thomas J. Blakeley

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Courses offered. The courses offered by the Institute for the academic year 1964–1965 are as follows:

Languages: Russian for beginners – Russian for advanced students – Polish for beginners.

History: History of Russia – History and Organization of the Communist Parties.

Litterature: Russian Literature during the XXth Century – Polish texts with Commentary.

Religion: Selected Problems Concerning Eastern Churches.

Philosophy and Ideology: Communist Ideology – Soviet Philosophy of Physics – Current Soviet Philosophy (Discussion Group) – Seminar for Contemporary Soviet Philosophy – Problems of Philosophy of Nature for Sovietologists – History of Russian Revolutionary Ideas before Lenin – Methodology for Sovietologists.

General: Proseminar on General Sovietology.

Lectures. Professor N. A. Margenau (Yale) has been visiting professor in the Institute at the beginning of the Fall Term.

Work in Progress. The following books (in addition to those mentioned in *SST* 4 (1964) 2, 181) are in print: *Two Soviet Studies on Frege* by B. V. Birjukov, translated and introducted by I. Angelelli; *Soviet Theory of Knowledge* by Th. J. Blakeley.

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